INVITATION FOR BID #2020-01

DESCRIPTION

ENVIRONMENTAL CLEANUP 835 Highway 42, Iberia, MO 65486

See attached General Conditions, Specifications, and Bid Form for detailed information

The Lake of the Ozarks Council of Local Governments (LOCLG) has received a grant funded by the Environmental Improvement and Energy Resources Authority (EIERA) Missouri Brownfield Revolving Loan Fund through the U.S. Environmental Protection Agency to conduct remedial activities at the 835 Highway 42 site to address the removal of contaminated soil.

Date Issued: January 13, 2020 Owner: Lake of the Ozarks Council of Local Governments Owners Representative: Linda Conner Owner's Representative Email: linda.conner@loclg.org Telephone Number: 573-346-5692 Mandatory Pre-Bid Conference and Site Walk: 10:30 a.m., Wednesday, February 5, 2020 (inclement weather alternative date is Thursday, February 13, 2020 – Please call if winter precipitation is predicted.)

Submit Bids to:

Linda Conner Lake of the Ozarks Council of Local Governments 985 E Hwy 54 Suite B Camdenton, MO 65020

SEALED BIDS MUST BE PHYSICALLY RECEIVED PRIOR TO **4:00 P.M. on Friday, February 21, 2020.** Bids will be opened by the Lake of the Ozarks Council of Local Governments at the location listed above.

- Bids shall be submitted on the Bid-Proposal Form provided and must be manually signed by the individual authorized to legally bind the company.
- Bids shall be submitted with the IFB number clearly indicated on the outside of the mailing envelope.
- Bids received after the opening date and time will be rejected.
- The attached Terms and Conditions shall become part of the contract resulting from this solicitation.
- FAXED/EMAILED BIDS WILL NOT BE ACCEPTED.

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ATTACHMENTS

- A ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES FOR THE 835 HIGHWAY 42, IBERIA SITE
- B REMEDIAL ACTION PLAN FOR THE 200 N. FOREST AVE., MAYVIEW, MISSOURI SITE
- C SAMPLE PERFORMANCE AND LABOR AND MATERIALS BONDS
- D SAMPLE FEDERAL WORK AUTHORIZATION PROGRAM AFFIDAVIT
- E AFFIDAVIT OF COMPLIANCE
- F DEBARMENT AND SUSPENSION CERTIFICATION
- G WAGE RATES

INSTRUCTION TO BIDDERS

01. Opening Location

The Bids will be opened at Lake of the Ozarks Council of Local Governments, 985 E Hwy 54, Suite B, Camdenton, MO

02. IFB Delivery Requirements

Any Bids received after the above stated time and date will not be considered. It shall be the sole responsibility of the bidder to have their Bid delivered before the due date and time indicated. If a Bid is sent by U.S. Mail, the bidder shall be responsible for its timely delivery. Bids delayed by mail shall not be considered, shall not be opened, and shall be rejected. Arrangements may be made for their return at the bidder's request and expense. Bids may be mailed and accepted if the signed bid form and required information was mailed and received prior to the due date and time. Bids sent by email will not be accepted.

03. Sealed and Marked

If sent by mail, one original signed Bid shall be submitted in one sealed package, clearly marked on the outside of the package with the Invitation for Bid number and addressed to:

Linda Conner Lake of the Ozarks Council of Local Governments 985 E Hwy 54 Suite B Camdenton, MO 65020

04. Legal Name and Signature

Bids shall clearly indicate the legal name, address, and telephone number of the bidder (company, firm, corporation, partnership, or individual). Bids shall be manually signed above the printed name and title of signer on the Affidavit of Compliance page. The signer shall have the authority to bind the company to the submitted Bid. Failure to properly sign the Bid form shall invalidate same, and it shall not be considered for award.

05. Corrections

No erasures are permitted. If a correction is necessary, draw a single line through the entered figure and enter the corrected figure above it. Corrections must be initialed by the person signing the Bid.

06. Clarification and Addenda

Each bidder shall examine all Invitation for Bid documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries or suggestions, concerning interpretation, clarification, or additional information pertaining to the Invitation for Bid shall be made through the listed representative for the Lake of the Ozarks Council of Local Governments (Owner) in writing or through email. The Lake of the Ozarks Council of Local Governments shall not be responsible for oral interpretations given by any representative. The issuance of written addenda is the official method whereby interpretation, clarification, or additional information can be given.

It shall be the responsibility of each bidder, prior to submitting their Bid, to contact the Owner's representative at phone number 573-346-9686, to determine if addenda were issued and to make such addenda a part of their Bid.

07. IFB Expenses

All expenses for bid making are to be borne by the bidder.

08. Irrevocable Offer

Any Bid may be withdrawn up until the due date and time set for opening of the IFB. Any Bid not so withdrawn shall, upon opening, constitute an irrevocable offer for a minimum period of 90 days to sell to the Owner the goods or services set forth in the IFB, until one or more of the Bids have been duly accepted by the Owner.

09. Responsive and Responsible Bidder

To be responsive, a bidder shall submit a Bid which conforms in all material respects to the requirements set forth in the Invitation for Bid. To be a responsible bidder, the bidder shall have the capability in all respects to perform fully the contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment and credit which will ensure good faith performance. The lowest responsible bidder shall mean the bidder who makes the lowest Bid to sell goods or services of a quality which conforms closest to the quality of goods or services set forth in the specifications or otherwise required by the Owner and who is known to be fit and capable to perform the Bid as made.

10. Reserved Rights

The Owner reserves the right to make such investigations as it deems necessary to make the determination of the bidder's responsiveness and responsibility. Such information may include, but shall not be limited to: current financial statement, verification of availability of equipment and personnel, and past performance records.

11. The Right to Audit

The bidder agrees to furnish supporting detail as may be required by the Owner to support charges or invoices, to make available for audit purposes all records covering charges pertinent to the purchase, and to make appropriate adjustments in the event discrepancies are found. The cost of any audit will be paid by the Owner. The Owner shall have the right to audit the bidder's records pertaining to the work/product for a period of three (3) years after final payment.

12. Applicable Law

All applicable laws and regulations of the State of Missouri, will apply to any resulting agreement, contract, or purchase order.

13. Right to Protest

Protestors shall seek resolution of their complaints with the Owner's representative.

Any protest shall state the basis upon which the solicitation or award is contested and shall be submitted within ten (10) calendar days after such aggrieved person knew or could have reasonably been expected to know of the facts giving rise thereto.

14. Ethical Standards

With respect to this IFB, if any bidder violates or is a party to a violation of the general ethical standards of the State of Missouri Statues, such bidder may be disqualified from furnishing the goods or services for which the Bid is submitted.

15. Collusion

By offering a submission to this Invitation for Bid, the bidder certifies the bidder has not divulged, discussed, or compared the Bid with other bidders and has not colluded with any other bidder or parties to this IFB whatsoever. Also, the bidder certifies, and in the case of a joint Bid, each party thereto certifies as to their own organization, that in connection with this IFB:

- a. Any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor.
- b. Any prices and/or cost data for this Bid have not knowingly been disclosed by the bidder and will not knowingly be disclosed by the bidder prior to the scheduled opening directly or indirectly to any other bidder or to any competitor.
- c. No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition.
- d. The only person or persons interested in this Bid, principal or principals are named therein and that no person other than therein mentioned has any interest in this Bid or in the contract to be entered into.
- e. No person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee exempting bona fide employees or established commercial agencies maintained by the Purchaser for the purpose of doing business.

16. Contract Forms

Any agreement, contract, or purchase order resulting from the acceptance of a Bid shall be on forms either supplied by or approved by the Owner.

17. Liability and Indemnity

- a. In no event shall the Owner be liable to the Contractor for special, indirect, or consequential damages, except those caused by the Owner's gross negligence or willful or wanton misconduct arising out of or in any way connected with a breach of this contract. The maximum liability of the Owner shall be limited to the amount of money to be paid or received by the Owner under this contract.
- b. The Contractor shall defend, indemnify and save harmless the Owner, its elected or appointed officials, agents and employees from and against any and all liability, suits, damages, costs (including attorney fees), losses, outlays and expenses from claims in any manner caused by, or allegedly caused by, or arising out of, or connected with, this contract, or the work or any subcontract thereunder (the Contractor hereby assuming full responsibility for relations with subcontractors), including, but not limited to, claims for personal injuries, death, property damage, or for damages from the award of this contract to Contractor.
- c. The Contractor shall indemnify and hold the Owner harmless from all wages or overtime compensation due any employees in rendering services pursuant to this agreement or any subcontract, including payment of reasonable attorneys' fees and costs in the defense of any claim made under the Fair Labor Standards Act, the Missouri Prevailing Wage Law or any other federal or state law.

18. IFB Forms, Variances, Alternates

Bids <u>must be submitted</u> on attached IFB forms, although additional information may be attached. Bidders must indicate any variances from the Owner's requested specifications and/or terms and conditions, on the IFB Affidavit of Compliance. Otherwise, bidders must fully comply with the Owner requested specifications and terms and conditions. Alternate Bids may or may not be considered at the sole discretion of the Owner.

19. Bid Form

All blank spaces must be completed with the appropriate response. The bidder must state the price, written in ink, for what is proposed to complete each item of the project. Bidders shall insert the words "no bid" in the space provided for an item for which no Bid is made. The bidder shall submit an executed Bid form, affidavit of compliance with other requested documents.

20. Modifications or Withdrawal of Bid

A modification for a Bid already received will be considered only if the modification is received prior to the time announced for opening of Bids. All

modifications shall be made in writing, executed, and submitted on the same form and manner as the original Bid. Modifications submitted by telephone, fax, or email will not be considered.

21. Errors in Bids

Bidders or their authorized representatives are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting Bids; failure to do so will be at the bidder's own risk. Neither law nor regulations make allowance for errors either of omission or commission on the part of bidders. In case of error of extension of prices in the Bid, the unit price shall govern.

22. Prices Bid

Give both unit price and extended total. Price must be stated in units of quantity specified in the bidding specifications. In case of discrepancy in computing the amount of the Bid, the unit price of the Bid will govern. All prices shall be F.O.B. destination, freight prepaid (unless otherwise stated in special conditions). Each item must be bid separately and no attempt is to be made to tie any item or items in with any other item or items. If a bidder offers a discount on payment terms, the discount time will be computed from the date of satisfactory delivery at place of acceptance and receipt of correct invoice at the office specified. Payment terms shall be Net 30 if not otherwise specified. Pre-payment terms are not acceptable.

23. Discounts

Any and all discounts except cash discounts for prompt payments must be incorporated as a reduction in the Bid price and not shown separately. The price as shown on the Bid shall be the price used in determining award(s).

24. Descriptive Information

All equipment, materials, and articles incorporated in the product/work covered by this IFB are to be new and of suitable grade for the purpose intended. Brand or trade names referenced in specifications are for comparison purposes only. Bidders may submit Bids on items manufactured by other than the manufacturer specified when an "or equal" is stated.

25. Deviations to Specifications and Requirements

When bidding on an "or equal," Bids must be accompanied with all descriptive information necessary for an evaluation of the proposed material or equipment such as the detailed drawings and specifications, certified operation and test data, and experience records. Failure of any bidder to furnish the data necessary to determine whether the product is equivalent, may be cause for rejection of the specific item(s) to which it pertains. All deviations from the specifications must be noted in detail by the bidder on the Affidavit of Compliance form, at the time of submittal of Bid. The absence of listed deviations at the time of submittal of the Bid will hold the bidder strictly accountable to the specifications as written. Any deviation from the specifications as written and accepted by the Owner may be grounds for rejection of the material and/or equipment when delivered.

26. Quality Guaranty

If any product delivered does not meet applicable specifications or if the product will not produce the effect that the bidder represents to the Owner, the bidder shall pick up the product from the Owner at no expense. Also, the bidder shall refund to the Owner any money which has been paid for same. The bidder will be responsible for attorney fees in the event the bidder defaults and court action is required.

27. Quality Terms

The Owner reserves the right to reject any or all materials if, in its judgment, the item reflects unsatisfactory workmanship, manufacturing, or shipping damages.

28. Tax-Exempt

The Owner is exempt from sales taxes.

29. Awards

- a. Unless otherwise stated in the Invitation for Bid, cash discounts for prompt payment of invoices will not be considered in the evaluation of prices. However, such discounts are encouraged to motivate prompt payment.
- b. As the best interest of the Owner may require, the right is reserved to make awards by item, group of items, all or none, or a combination thereof; to reject any and all Bids or waive any minor irregularity or technicality in Bids received.
- c. Awards will be made to the Bidder whose Bid (1) meets the specifications and all other requirements of the Invitation for Bid and (2) is the lowest and best Bid, considering price, delivery, responsibility of the bidder, and all other relevant factors.

30. Authorized Product Representation

The successful bidder(s) by virtue of submitting the name and specifications of a manufacturer's product will be required to furnish the named manufacturer's product. By virtue of submission of the stated documents, it will be presumed by the Owner that the bidder(s) is legally authorized to submit and the successful bidder(s) will be legally bound to perform according to the documents.

31. Regulations

It shall be the responsibility of each bidder to assure compliance with OSHA, EPA, Federal, and State of Missouri rules, regulations, or other requirements, as each may apply.

32. Termination of Award

Any failure of the bidder to satisfy the requirements of the Owner shall be reason for termination of the award. Any Bid may be rejected in whole or in part for good cause when in the best interest of the Owner.

33. Royalties and Patents

The successful bidder(s) shall pay all royalties and license fees for equipment or processes in conjunction with the equipment being furnished. Bidder

shall defend all suits or claims for infringement of any patent right and shall hold the Owner harmless from loss on account or cost and attorney's fees incurred.

34. Equal Employment Opportunity Clause

The Lake of the Ozarks Council of Local Governments, in accordance with the provision of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all bidders that affirmatively ensure that in any contract entered into pursuant to this advertisement that minority businesses will be afforded full opportunity to submit Bids in response to this advertisement and will not be discriminated against on the grounds of race, color, or national origin in consideration for award.

35. Bid Tabulation

Bidders may request a copy of the bid tabulation of the Invitation for Bid.

36. Budgetary Constraints

The Owner reserves the right to reduce or increase the quantity, retract any item from the Bid, or upon notification, terminate entire agreement without any obligations or penalty based upon availability of funds.

37. Order of Precedence

Any and all Special/General Conditions and Specifications attached hereto, which varies from the instruction to bidders, shall take precedence.

38. Affidavit for Service Contracts

The Bidder represents, in accordance with RSMO 285.530.2 that they have not employed, or subcontracted with, unauthorized aliens in connection with the scope of work to be done under the IFB and agrees to provide an affidavit to the Owner affirming that they have not, and will not in connection with the IFB, knowingly employ, or subcontract with, any person who is an unauthorized alien.

39. Inspection and Acceptance

No item(s) received by the Owner pursuant to this contract shall be deemed accepted until the Owner has had reasonable opportunity to inspect the item(s). Any item(s) which are discovered to be defective or which do not conform to any warranty of the Seller upon inspection may be returned at the seller's expense for full credit or replacement. If at a later time, the defects were not ascertainable upon the initial inspection may also be returned at the Seller's expense for full credit or replacement. The Owner's return of defective items shall not exclude any other legal, equitable or contractual remedies the Owner may have.

835 HIGHWAY 42, IBERIA, MO - ENVIRNOMENTAL CLEANUP INVITATION FOR BID #2020-01 GENERAL TERMS AND CONDITIONS

1. **INTRODUCTION:** The Lake of the Ozarks Council of Local Governments (Owner) plans to conduct remedial activities to address contaminated soil at the 835 Highway 42 site located in Iberia, Missouri. The Owner is utilizing the EIERA's Missouri Brownfields Revolving Loan Fund Program to help facilitate the remedial activities. Currently, the project is enrolled in the Missouri Department of Natural Resources /Brownfields Voluntary Cleanup Program (MDNR/BVCP). This project is being conducted to remediate contaminated soil at the site. A Remedial Action Plan (RAP) describing the site and planned remedial activities has been completed by Seagull Environmental Technologies, Inc. (Seagull) and is provided as Attachment B.

The contractor shall provide all labor and materials to complete the scope as specified herein, and will be responsible for finalizing the RAP for approval by MDNR/BVCP. This will include providing all necessary documentation, reports, sampling, and other required items for participation in the MDNR/BVCP as well as following all BVCP requirements. These requirements include a Health and Safety Plan and a Quality Assurance Project Plan (QAPP). The applicable MDNR generic QAPP may be used, however if deviation from the generic QAPP is necessary, a Site-specific QAPP Addendum shall be prepared and submitted to the MDNR/ BVCP. The selected contractor will be responsible for acquiring all permits required for the project. It will be the contractor's responsibility to obtain a Certificate of Completion from the MDNR/BVCP.

Term: The selected contractor must be able to complete all remedial activities by May 31, 2020.

2. **PRE-BID SITE VISIT**: The contractor shall be presumed to have made a reasonable inspection of the premises prior to the time of bidding and shall be held responsible for all information available through such inspection. The contractor shall immediately upon discovery, bring to the attention of the Owner any conflicts that may occur among the various provisions of the specifications. The Owner shall resolve such conflicts and shall be responsible for any costs reasonably incurred by the contractor due to such conflict. Failure of the contractor to bring conflicts or exceptions to the attention of the Owner shall allow the Owner to require any change deemed necessary before acceptance by the Owner.

A mandatory pre-bid site visit will be held for this bid on February 5, 2020 at 10:30 a.m. at 835 Highway 42, Iberia, Missouri. At that time a site walk will be conducted to view the site.

- 3. **INVESTIGATION OF CONDITIONS**: Before submitting a bid, Bidders should carefully examine the specifications, visit the site of the work, and fully inform themselves as to all existing conditions and limitations including verification of measurements and quantities and shall include in the bid a sum to cover the cost of items of work to be performed and, if awarded the contract, shall not be allowed any extra compensation by reason of any matter or item concerning which such Bidder might have fully informed himself prior to the bidding, and the successful Contractor must employ, so far as possible such methods and means in carrying of his work as will not cause any interruption or interference with any other Contractor.
- 4. **PERFORMANCE BOND AND A LABOR, AND MATERIALS PAYMENT BOND:** The Contractor shall furnish a Performance Bond and a Labor and Materials Payment Bond with surety approved by the Owner and on the forms approved by the Owner (provided in this bid document as Attachment C), each bond shall be in the full amount of the contract conditioned upon the full and faithful performance of all major terms and conditions of this contract and payment of all labor and material suppliers. It is further mutually agreed between the parties hereto that if at any time after the execution of this agreement and the surety bond(s) hereto attached for its faithful performance and payment of labor and material suppliers, the Owner shall deem the surety or sureties

upon such bond(s) to be unsatisfactory, or if, for any reason, such bond(s) ceases to be adequate to cover the performance of the work, the Contractor shall, at its expense, within five (5) days after the receipt of notice from the Owner to do so, furnish an additional bond or bonds, in such form and amount, and with such surety or sureties as shall be satisfactory to the Owner. In such event no further payment to the Contractor shall be deemed to be due under this contract until such new or additional security for the faithful performance of the work and the payment of labor and material suppliers shall be furnished in a manner and form satisfactory to the Owner. The corporate surety on any performance or payment bond must be licensed by the State of Missouri and if the required bond exceeds \$25,000 must be listed in United States Treasury Circular 570.

- 5. **PREVAILING WAGE REQUIREMENT:** The work performed under this Agreement is subject to the Davis-Bacon Act. It is agreed that all workman employed by the Contractor, and any subcontractor employed under him, will be paid not less than the prevailing wage as determined by appropriate governmental authority and the Annual Wage Order attached hereto and made a part hereof. It is agreed that the contract or sums payable to the Contractor for the performance of this agreement are not subject to increase as a result of any change in the amount of such wage determined pursuant to Section 290.210 et. seq. R.S.Mo. The Federal Prevailing Wage rates are provided as Attachment G. The Contractor shall be required to complete an affidavit stating that he or she has complied with the prevailing wage law prior to final payment by the Owner.
- 6. **QUANTITIES:** The quantities listed herein are estimates. The Owner will not guarantee any amount of work related to the contract. The contractor will be paid for quantities actually constructed or performed as determined by field measurement agreed upon by the Contractor and the Owner (or Owner's representative).
- 7. **FUNDING:** The funding for this project is through the EIERA Missouri Brownfields Revolving Loan Fund from the U.S. Environmental Protection Agency (EPA); therefore, the contractor shall be responsible for necessary reports to satisfy the requirements of the granting agencies. The following requirements shall be applied to the current requirements of the RFP, and shall be followed as applicable.
 - (A) <u>Nondiscrimination in Employment</u> Bidders on this work will be required to comply with the President's Executive Order Number 11246. Requirements for bidders and contractors under this order are explained in the specifications.
 - (B) <u>Davis-Bacon</u> The sub-recipient assures that it, as well as its sub-recipients if required by future OMB guidance, shall fully comply with said section in that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the federal government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40,. United States Code (Davis-Bacon Act). It is understood that the Secretary of Labor has the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code, if applicable.
 - (C) <u>Non-segregated Facilities</u> The successful bidder will be required to submit a certification of Non-segregated Facilities and to notify prospective subcontractors of the requirement for such a certification where the subcontract exceeds \$10,000.
 - (D) Equal Employment Opportunity 41 CFR 6044 published April 7, 1978 and amended October 3, 1980, "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity" (Executive Order 11246) (Notice) and Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) (Specifications), as applicable.

- (E) <u>Debarment and Suspension</u> Executive Order 12549 Debarment and Suspension establishes procedures which require EPA to deny any individual, organization, or unit of government the opportunity to participate in federally-assisted programs because of misconduct or poor performance. The General Services Administration (GSA) publication entitled "Lists of Parties Excluded from Federal Procurement or Non-procurement Programs" will identify those who are prohibited from the bidding process. Bidders are required to submit the certification included as Attachment F with their bid proposal, if applicable.
- (F) <u>Project Sign</u> A project sign must be prominently displayed at the construction site. This sign will be provided by the Owner.
- (G) <u>Access to Construction Site and Contract Records</u> The contractor shall provide access to the project site and project records by the, Environmental Improvement and Energy Resources Authority, Missouri Department of Natural Resources, the EPA, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions.
- (H) <u>Historical or Archaeological</u> Required by P.L. 93-291, if applicable.

If during the course of construction evidence of deposits of historical or archaeological interest is found, the contractor shall cease operations affecting the find and shall notify the owner who shall notify the Missouri Department of Natural Resources and the Director, Division of Parks, P.O. Box 176, 1101 Riverside Dr., Jefferson City, Missouri 65102, Telephone (573) 751-2479. No further disturbances of the deposits shall ensue until the contractor has been notified by the owner to proceed. The owner will issue a notice to proceed only after the state official has surveyed the find and made a determination to the Missouri Department of Natural Resources and the owner. Compensation to the contractor, if any, for lost time or changes in construction to avoid the find, shall be determined in accordance with changed conditions or change order provisions of the specifications.

- (I) <u>Late Payment Clause</u> If the Owner fails to make payment thirty (30) days after receipt of the CONTRACTORS application for payment, in addition to other remedies available to the CONTRACTOR, then interest shall be added to each such payment in accordance with section 34.057 RSMo. (Supp. 1991).
- (J) <u>Clean Air Act</u> The contractor shall comply with the Clean Air Act (42 U.S.C. 7506(C)), if applicable.
- (K) <u>Clean Water Act</u> The contractor shall comply with the Clean Water Act (33 U.S.C. 1368), if applicable.
- (L) <u>Contract Work Hours and Safety Standards Act</u> The contractor shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR part 5), if applicable.
- (M) <u>Energy Efficiency Requirements</u> The contractor shall comply with the mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (P.L. 94-163, 89 Stat. 871). CFR 31.36(i)(13), if applicable.

- (N) <u>False Claims Act</u> -- The contractor, as well as its subcontractors, if required by future OMB guidance, shall promptly refer to the State of Missouri or other appropriate Inspector General any credible evidence that a principal, employee, agent, contractor, sub-grantee, subcontractor or other person has submitted a false claim under the False Claims Act or has committed a <u>criminal</u> or civil violation of laws pertaining to fraud, conflict or interest, bribery, gratuity or similar misconduct involving those funds.
- (O) <u>Recycled Materials</u> In accordance with Section 6002 of the Resource Conservation and Recovery Act (RCRA) (U.S.C. 6962), preference shall be given to the procurement of specific products containing recycled materials identified in guidelines developed by the Environmental Protection Agency. Current guidelines are contained in 40 CFR 247-254.
- (P) <u>Small Business Act</u> Prior to awarding contracts, the loan recipient and any contractor awarding subcontracts must take the following affirmative steps in accordance with Section 129 of Public Law 100-590, Small Business Administration Reauthorization and Amendment Act of 1988, if applicable:
 - a. Placing Small Business in Rural Areas (SBRA) on solicitation lists;
 - b. Ensuring that SBRAs are solicited whenever they are potential sources;
 - c. Dividing total requirements, when economically feasible, into small tasks or quantities to permit maximum participation by SBRAs;
 - d. Establishing delivery schedules, where the requirements of work will permit which would encourage participation by SBRAs;
 - e. Utilizing the services of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce, as appropriate.
- (Q) <u>Storm Water Permit</u> In accordance with 10 CSR 20-6.200(I)(A) and (1)(B)(7), if the proposed project disturbs one (1) contiguous surface acre or more of land, then a land disturbance permit to discharge storm water is required. If the owner's population is greater than ten thousand (10,000) or is located within an urbanized area and/or the design flow of the wastewater treatment plant is greater than or equal to 1 MGD, then storm water discharges should be included in the existing NPDES permit. In the first case, the owner must ensure that the storm water discharges are covered by their municipal separate storm sewer system (MS4) permit. In the second case, the owner should check with the appropriate Regional Office to ensure that storm water discharges are covered in the existing permit for the wastewater treatment plant. For further information, contact the Missouri Department of Natural Resources, Water Protection Program, Permits Section, P.O. Box 176, Jefferson City, Missouri 65102. Telephone: (573) 751-6825.
- (R) <u>Employment of Unauthorized Aliens Prohibited</u> The contractor must comply with section 285.530 RSMo. and, if required, future OMB guidance regarding employment of unauthorized aliens prohibited. (See Attached Affidavit in Attachment D).

Pursuant to §285.530.1, RSMo, the subrecipient assures that it, as well as its subrecipients if required by future OMB guidance, do not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the State of Missouri, and shall affirm, by sworn affidavit and provision of documentation, its enrollment and participation in a federal work

authorization program with respect to the employees working in connection with the contracted services. Further, the subrecipient assures that it, as well as its subrecipients if required by future OMB guidance, shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

In accordance with sections 285.525 to 285.550, RSMo a general contractor or subcontractor of any tier shall not be liable when such contractor or subcontractor contracts with its direct subcontractor who violates subsection 1 of section 285.530, RSMo if the contract binding the contractor and subcontractor affirmatively states that the direct subcontractor is not knowingly in violation of subsection 1 of section 285.530, RSMo and shall not henceforth be in such violation and the contractor or subcontractor receives a sworn affidavit under the penalty of perjury attesting to the fact that the direct subcontractor's employees are lawfully present in the United States.

- (S) <u>Privity of Contract</u> Neither the Environmental Improvement and Energy Resources Authority nor its employees are or will be a party to the contract(s) at any tier.
- (T) <u>Geographical Preference Prohibited</u> -40 CFR 31.36 (c)(2) prohibits the use of geographical preferences, if applicable.
- (U) <u>Records Retention</u> The contractor and all sub-contractors shall retain all project related records for three years after final payment(s) and all other pending matters are closed.
- (V) <u>MBE/WBE</u> The following documents will need to be completed if applicable: Missouri State Revolving Fund and State Grant & Loan Program' Procedures for Implementation of Minority Business Enterprise/Women's Business Enterprise requirements and the Minority and Women's Business Enterprise Utilization Worksheet. The contractor shall make and document a good faith effort to use MBE/WBE's and fill out the reporting forms as applicable. The goals are 10% MBE and 5% WBE.
- 8. CENTRAL CONTRACTOR REGISTRATION: In accordance with the Federal Funding Accountability Act of 2006, the contractor assures that it, as well as its subcontractor(s), shall register in the Central Contractor Registration (CCR) database at <u>https://www.sam.gov/portal/public/SAM/</u>, and maintain current registration at all times during the pendency of this contract. In order to register in CCR, a valid Dun and Bradstreet Data Universal Numbering System (DUNS) Number is required. See <u>www.dnb.com</u>
- 9. INSURANCE REQUIREMENTS: Without limiting any of the other obligations or liabilities of the Contractor, the Contractor shall secure and maintain at its own cost and expense, throughout the duration of this Contract and until the work is completed and accepted by the Owner, insurance of such types and in such amounts as may be necessary to protect it and the interests of the Owner against all hazards or risks of loss as hereunder specified or which may arise out of the performance of the Contract Documents. The form and limits of such insurance, together with the underwriter thereof in each case, are subject to approval by the Owner. Regardless of such approval, it shall be the responsibility of the contractor to maintain adequate insurance coverage at all times during the term of the Contract. Failure of the Contractor to maintain coverage shall not relieve it of any contractual responsibility or obligation or liability under the Contract Documents.

The minimum coverage for the insurance referred to herein shall be in accordance with the requirements established below:

A. Workers' Compensation

Statutory

Employer's Liability	
Bodily Injury by Accident	\$100,000 Each Accident
Bodily Injury by Disease	\$500,000 Policy Limit
Bodily Injury by Disease	\$100,000 Each Employee

B. Commercial General Liability Limits: Bodily Injury and Property Damage

Each Occurrence, including Products:	\$1,000,000
Personal & Advertising Injury	\$1,000,000
General Aggregate:	\$2,000,000

C. Automobile Liability Insurance: Policy shall protect the Contractor against claims for bodily injury and/or property damage arising out of the ownership or use of any owned, hired, and/or non-owned vehicle:

Bodily Injury Limits:	\$1,000,000 for each person and \$1,000,000 for each accident
Property Damage Limits:	\$1,000,000 for each accident
	OR
	\$1,000,000 Combined Single Limits, including bodily injury and property damage

- D. **Subcontracts**: In case any or all of this work is sublet, the Contractor shall require the subcontractor to procure and maintain all insurance required in subparagraphs (A), (B) and (C) hereof and in like amounts. Contractor shall require any and all subcontractors with whom it enters into a contract to perform work on this project to protect the Owner through insurance against applicable hazards or risks and shall provide evidence of such insurance.
- E. **Notice:** The Contractor and/or subcontractor shall furnish the Owner prior to beginning the work, satisfactory proof of carriage of all the insurance required by this contract, with the provision that policies shall not be canceled, modified or non-renewed without thirty (30) days written notice to the Owner.
- **10. REPAIR OF DAMAGES:** It is the responsibility of the Contractor to repair any damages incurred in the area that is directly related to the project. When damages occur, the Owner is to be notified and shall inspect the repairs upon completion.
- **11. SAFETY:** Contractor shall comply with all applicable OSHA, State of Missouri Safety Regulations and comply with all construction safety requirements of local authorities having jurisdiction. Contractor shall exercise all due caution to exclude the public from the work area and especially from contact with any hazardous materials.

A project-specific Health and Safety Plan (HASP) will be prepared by the Contractor to govern the Contractor's field work activities at the site. The Contractor will provide qualified staff with proper/required training to perform remediation activities. The Owner reserves the right to ask Contractor for documentation of training.

- 12. TRAINING AND CERTIFICATION REQUIREMENTS: The Contractor must meet specific training requirements specified by State and Federal laws and regulations. The Contractor shall remain responsible for compliance with these requirements through completion of the project. The Site Safety Officer and field personnel must have appropriate health and safety training as specified in OSHA, 29 CFR 1910.120 (HAZWOPER). Specific safety measures shall be clearly outlined in the project Health and Safety Plan.
- **13. SITE CLEANLINESS:** The Contractor shall give special attention to keeping the work site clean and free from trash and debris.

- **14. PERMITS:** All permits necessary to complete the project shall be secured and paid for by the Contractor. The Contractor shall give all notices and comply with all laws, ordinances and regulations bearing on the conduct of the work (as specified).
- **15. SANITARY PROVISIONS:** The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the regulations of the State Board of Health and any sanitary regulations of the community in which work is being performed. Temporary toilets shall be provided as required.
- **16. OTHER DELAYS:** If the Contractor or his subcontractor experiences documented hindrances or delays which, in his opinion, are not usually to be expected in the performance of the work, and which affect the performance of the work, he may request a change in the agreement. The Contractor shall be entitled to an extension of the time for contract completion, but such contract time of completion shall be extended no more than one day for each day of delay. Any such agreement to modify or extend the time of contract completion shall be made in writing by formal addendum to the contract. The time of application of liquidated damages shall not begin until after the amended date for contract/phase completion. Such hindrances and delays may include, but not be limited to, acts or failures to act by other contractors employed by the Owner, fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.
- **17. PUNCH LIST:** A list of incomplete items (typically referred to as a "punch list") will be issued at Substantial Completion provided that no incomplete item will prevent the Owner's use of the space/facility as it is intended to be used, including life safety components. After Substantial Completion and issuance of the "punch list", subsequently discovered items which are not complete, and/or in nonconformance with the Contract may be added to the list until such time as Final Acceptance. Payment and/or exclusion of any item from a "punch list" shall not relieve the Contractor of the obligation to fulfill all requirements of the Contract. All punch list items shall be completed within thirty (30) days of Final Acceptance by the Owner and prior to final payment.
- **18. CHANGES IN WORK:** The Owner, without giving notice to the surety and without invalidating this contract may make changes by altering, adding or deducting from the work with the contract sum being adjusted accordingly. All such work and any approved time extensions shall be added to the contract by Contract addendum. Each contract change shall include all cost required to perform the work including all labor, material, equipment, overhead, profit, delays, disruptions or other miscellaneous expenses. The Contractor shall provide a detailed cost breakdown for all changes in work to the Owner. The percentage of overhead and profit shall not increase as a result of any change in work.
- **19. PROTECTION OF WORK:** The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect from injury or loss arising in connection with the contract. He shall make good any such damage, injury, or loss, except as such may be directly due to error in Contract documents.
- **20. BASIS FOR AWARD:** Other factors that will be considered besides the lowest price are:
 - A. Quality of workmanship as represented by references;
 - B. Capabilities to do required work; and
 - C. Completion Date.

The contract resulting from this solicitation will be awarded to that responsible offerer whose offer, conforming to the invitation is determined most advantageous to the Owner, price and other factors considered. The

offerer's proposal shall be in the form prescribed by this invitation and shall contain a response to each of the areas identified which affects the evaluation factors for an award.

Exceptions to the bid may be considered if determined minor in nature and acceptable to the Owner's application. All exceptions shall be noted on the attached "Affidavit of Compliance" form included as Attachment D.

- **21. PAYMENT TERMS:** The Bidder shall clearly state their prompt payment discount and net payment terms in the space provided on the Owner's Bid Form or Proposal page. If this section is not completed, the Owner will assume terms are net 30 days.
- **22. PAYMENTS:** Progress payments will be made each month in the amount of 95 percent of the estimated value of the services provided at the job site during the previous calendar month, providing the work is reasonably complete. The Owner will withhold 5 percent of the amount of each progress payment. The last payment due for each contract will be paid by the Owner to the Contractor only after the project has received a Certificate of Completion from the MDNR/BVCP and the Contractor has furnished the Owner with an affidavit stating that all persons, firms, or corporations who have furnished labor or materials, employed directly or indirectly in the work, have been paid in full. The Owner shall rely on said affidavit at face value. The Owner shall have the right to demand and receive from the Contractor an affidavit stating that payment in full has been made for all labor, services, and materials incorporated into the work, for the period of time for which the progress payment is due. The Contractor does hereby release, remise, and quit claim any and all rights he may enjoy to perfect any lien or any other type of statutory common law or equitable lien against this project.
- **23. PAYMENTS WITHHELD:** The Owner may withhold or nullify in whole or part any payment to the Contractor to such extent as may be necessary to protect the Owner from loss on account of:
 - A. Defective work not remedied. When a notice of noncompliance is issued on an item or items, corrective action shall be undertaken immediately. Until corrective action is completed, no monies will be paid and no additional time will be allowed for correction of the item or items. The cost of corrective action(s) shall be solely borne by the Contractor.
 - B. A reasonable doubt that the contract can be completed for the balance then unpaid.
 - C. Failure of the Contractor to maintain satisfactory progress in accordance with the Contractors progress schedule.
 - D. When the Owner is satisfied the Contractor has remedied the above ground(s) for withholding payment, payment shall be made for the amounts withheld.
- **24. SUPERINTENDENT:** The Contractor shall keep on site, during progress of the work, a competent Superintendent satisfactory to the Owner. The Superintendent shall represent the contractor in his absence and all direction given to him shall be as if given to the Contractor. He shall carefully study and compare all drawings, specifications and other instruction and shall, at once, report to the Owner and its representatives any errors, inconsistency or omission which he may discover. The Superintendent shall not be changed except for good cause, and with the consent of the Owner. Within ten (10) calendar days of the Notice of Award, the contractor shall provide the name and qualifications of the Superintendent to the Owner.
- **25. DAILY CONSTRUCTION REPORTS:** The Contractor shall maintain a daily construction report recording the following information concerning events at the site; and submit a duplicate copy to the Owner at a weekly interval:

- 1. List of Subcontractors at the site
- 2. Approximate count of personnel at the site
- 3. Accident and unusual events
- 4. Meetings and significant decisions
- 5. Stoppages, delays, shortages or losses
- 6. Orders and requests of governing authorities
- 7. Change Orders received, implemented
- 8. Services connected, disconnected
- **26. PROGRESS SCHEDULE:** Within ten (10) calendar days after receipt of Notice of Award, the Contractor shall submit to the Owner for approval, a progress schedule in reproducible form utilizing a critical path method or other similar schedule, showing the rate of progress he agrees to maintain and the order in which he proposes to carry out various phases of work in order to attain the completion date as required by the Contract. Particular attention shall be devoted to those elements to be performed in the early stages of the effort to preclude overstatement that would result in an imbalance in payments and exceed the value of work performed. Work elements shall be limited to those tasks, which will indicate the progress of the work and which, may be readily identified and measured by personnel monitoring the contractor's progress. Normally the percentage factors of each work element should be related to the total value of the contract. No work shall begin without the Owner's review/approval of the progress schedule.
- **27. MISUNDERSTANDINGS:** No consideration will be granted for any alleged misunderstanding of the material to be furnished or work to be done, it being understood that the submission of a proposal and the entering into a contract is an agreement with all the items and conditions referred to herein.
- **28. ASSIGNED WORK AREAS:** The Contractor shall be responsible to work in only the assigned work areas and only park at the designated areas.
- **29. SPECIFICATION AND PLAN VARIANCE:** If the Contractor observes that the specifications and plans are at a variance therewith, he shall promptly notify the Owner in writing and any necessary changes shall be adjusted. If the Contractor performs any work contrary to such law, ordinance, rules and regulations, and does not comply with the aforesaid procedure, he shall bear all cost incidental to such violation.

30. COORDINATION AND PRECONSTRUCTION MEETING: Representatives of the Contractor shall attend a coordination meeting at a time and date decided by the Owner to discuss matters relative to the execution of this project. The Contractor's representative shall attend additional meetings thereafter as required by the Owner in order to expedite the work. These meetings shall be held at a place designated by the Owner.

INVITATION FOR BID SPECIFICATIONS

SCOPE OF PROJECT: Contractor shall provide all labor, materials, equipment, supplies, taxes, insurance, fuels, permits, and any and all other items necessary to complete the work, the removal of materials, and disposal of materials and related work, as specified herein. Contractor shall complete all work.

1. **SCHEDULE:** The Contractor will be required to commence work under this contract within ten (10) calendar days after receipt of the Notice to Proceed. Work will be required to be completed by May 31, 2020.

The Contractor is required to provide a sufficient work force and construction management so that no time extension will be granted for delay of contract award, weather conditions, utility conflicts, or Contractor scheduling of equipment or construction progress.

2. **SPECIFICATIONS:** All work shall be accomplished in accordance with this Scope of Work and the Specifications contained or referenced herein and in accordance with all local, state, and federal rules, laws, and regulations.

As mentioned, the 835 Highway 42, Iberia, Missouri property is enrolled the Missouri Department of Natural Resources Brownfields/Voluntary Cleanup Program (MDNR/BVCP). The MDNR/BVCP Project Manager is Ms. Jennifer Surber. The site cleanup goal under the MDNR/BVCP is for unrestricted use; therefor, cleanup activities have been planned to accomplish that goal.

Contractor must acquire and all permits and submit all notifications necessary to complete this project.

Copies of all permits, notification documents, sampling and analysis results, and disposal documents must be provided to the Owner. All of these documents are required to be submitted as part of the Remedial Action Final Cleanup Report, which the contractor must prepare.

A visual inspection of the remediated areas will be completed by the Owner's representative to approve completion.

3. **REMEDIAL ACTION PLAN**: The Remedial Action Plan (RAP) written for the site cleanup is included as Attachment B, and is considered part of the bid document. The RAP shall be used for the basis of the bid and the required clean up protocol. Specific to this bid, is the removal of contaminated soil at the site. The bid form with this bid document contains the estimated quantities of materials to be addressed during the cleanup activities. The quantities listed are estimates. The Owner will not guarantee any amount of work related to the contract. The contractor will be paid for quantities actually constructed or performed as determined by field measurement agreed upon by the Contractor and the Owner (or Owner's representative). Please note that the site's RAP further details the materials/items to be addressed during the cleanup activities. Additionally, the RAP details confirmation sampling associated with the cleanup. Cost associated with the confirmation sampling should be incorporated into costs for the cleanup.

Any changes to the RAP and cleanup protocol must be approved by the Owner, Environmental Improvement and Energy Resources Authority (EIERA), and MDNR/BVCP Project Manager, prior to commencing site work.

4. **HEALTH AND SAFETY PLAN**: The remedial contractor must prepare and submit a project-specific Health and Safety Plan to the Owner and MDNR/BVCP for approval prior to commencing any site work.

- 5. **QAPP**: The remedial contractor must prepare and submit a site specific Quality Assurance Project Plan (QAPP) to the Owner and to MDNR/BVCP for approval prior to commencing any site work.
- 6. REMEDIAL ACTION FINAL REPORT: The selected remedial contractor will be required to prepare and submit a Remedial Action Final Report to the MDNR/BVCP for approval. The Remedial Action Final Report will document all site cleanup activities, disposal quantities, and sample results. This task will not be considered complete until MDNR/BVCP has no further technical comments concerning the report. Upon completion, the contractor shall provide two copies of the report to MDNR and three copies to the Owner.
- 7. **DISCOVERY OF HAZARDOUS MATERIALS:** In the event previously unknown hazardous materials are discovered by the Contractor, the Contractor shall immediately suspend work in the specific location of the hazardous material and immediately notify the Owner.

835 HIGHWAY 42, IBERIA, MO SITE CLEANUP BID FORM – PROPOSAL

SUBMITTED BY_

(Company Name)

Pursuant to and in accordance with the above stated Invitation for Bid, the undersigned hereby declares that they have examined the bid documents and specifications for the item(s) listed below.

The undersigned proposes and agrees, if their Bid is accepted to furnish the item(s) submitted below, including delivery to the Owner in accordance with the delivery schedule indicated below and according to the prices products/services information submitted.

Item			Estimated		Extended Amount
Number	Description	Unit	Quantity	Unit Price	(Total)
	BASE BID ITEN	MS			
			T		
	SOIL EXCA	AVATION			
1	Excavation/Disposal of Petroleum Contaminated Soil	Cu/yd	178		
2	Site Restoration (backfilling activities)	Cu/yd	178		
				•	
REMEDIA	AL ACTION FINAL REPORT				
RENTEDT	Project Health & Safety Plan, QAPP ,Sampling, and any				
27	other items necessary to finalize plan per MDNR/BVCP	Unit	1	\$	\$
	Field Mobilization/Demobilization, Regulatory	Cint	-	Ψ	Ψ
28	Notification, and Permitting		1	\$	\$
29	Preparation of the Remedial Action Final Report	Unit	1	\$	\$
	• • • • • • • • • • • • • • • • • • •			I '	'
Base Bid I	tem Total	\$			

Notes:

Please note that the site's Remedial Action Plan further details the materials/items to be addressed during the cleanup activities. Additionally, the Remedial Action Plan details confirmation sampling associated with the cleanup. Cost associated with the confirmation sampling should be incorporated into the rates/costs listed in the table above.

STATEMENT OF BIDDER'S QUALIFICATIONS

For the

Environmental Remediation at the Lake of the Ozarks Council of Local Governments Site 835 Highway 42, Iberia, Missouri

(This form shall be completed and submitted with the project bid) All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The bidder may submit any additional information he so desires.

1. Name of bidder_____

2. Permanent main office address_____

3. When organized_____

4. If a corporation, where incorporated ______

5. How many years have you been engaged in construction under your present firm name or trade name? _____

6. Experience and Qualifications. Summarize experience with similar environmental remediation projects over the last year or four projects whichever is less. Include specific details regarding previous work performed under EPA Brownfields and the Missouri B/VCP Programs. Attach abbreviated resumes for the proposed Contract Manager and Superintendent on site.

7. List the more important contracts recently completed by you, stating approximate gross cost for each, and the month and year completed.

8. Contracts on hand: (Schedule these, showing gross amount of each contract and the respective anticipated dates of completion.)

9. Have you ever failed to complete any work awarded to you? If so, where and why?

10. Have you in the last five years ever been required to pay liquidated damages on any contract awarded to you? If so, where and why? _____

11. Have you ever defaulted on a contract? If so, where and why? _____

12. Has your firm ever engaged in litigation for the settlement of claims or disputes arising out of a construction contract? If so, give particulars.

13. To what extent would you expect to employ subcontractors? (Subcontractor Form Required)

14. Give bank reference._____

16. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Near Southside Employment Coalition, in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at	this	day of	
20			
Name of Bidder			
By			
Title			

State of _____

County of ______, being duly sworn, deposes and says that he is

(TITLE)

and that the answers to the foregoing questions and all statements therein contained are true and correct. Subscribed and sworn before me this _____ day of _____, 20____.

of

Notary Public My commission expires:

SUBCONTRACTOR DISCLOSURE FORM

Environmental Remediation at 835 Highway 42, Iberia, Missouri

(This form shall be completed and submitted with the project bid)

IF NO SUBCONTRACTORS ARE TO BE USED, CHECK HERE.

Sign and date _____

Use additional forms for each Subcontractor

SUBCONTRACTOR:_____

ADDRESS:

PHONE:

CONTACT PERSON:

BID ITEMS TO BE SUBCONTRACTED

(ITEM NO., DESCRIPTION, QUANTITY, PRICE, AMOUNT)

PRIME CONTRACTOR: _____

SIGNATURE: _____

DATE: _____

(Note: Subcontractor Qualifications may be required prior to Bid Award.)

Subcontractor Approval _____ Date _____

ATTACHMENT A

ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES

Old Saw Shop 835 Highway 42 Iberia, MO 65486

Prepared for:

Missouri Department of Natural Resources P.O. Box 176 Jefferson City, MO 65102

MARCH 2018

Prepared by:



Professional Environmental Engineers, Inc. 500 S. Ewing, Suite E St. Louis, Missouri 63103 Office: (314) 531-0060 Fax: (314) 531-0068

PE Project No. 016.03.003

Analysis of Brownfields Cleanup Alternatives Old Saw Shop, 835 Highway 42, Iberia, Missouri 65486 Prepared by Professional Environmental Engineers, Inc. (PE) For the City of Iberia

1.0 INTRODUCTION AND BACKGROUND

This document provides an analysis of brownfields cleanup alternatives (ABCA) for the abovereferenced property. Section one includes information on the site location, previous site uses, assessment and remediation activities that have occurred at the site, and the reported planned reuse of the site.

1.1 Site Location

The Old Saw Shop (site) is located at 835 North Lombar Street (Highway 42) in Iberia, Missouri.

1.2 Previous Site Uses and Previous Cleanup Remediation

The site is currently a vacant lot on a 0.5-acre, rectangular-shaped parcel. Historic documents indicate that it was operated as a garage and millinery shop in 1921 and as a saw equipment shop and pool hall in more recent years. The property was acquired by the City of Iberia in November 2015; a former on-site structure (the Old Saw Shop?) appears to have been demolished within the last two years. No previous cleanup or remediation activities have been reported to PE.

1.3 Previous Site Assessment Findings

A Phase I Environmental Site Assessment (ESA) was conducted by Seagull Environmental Technologies, Inc. (Seagull), in 2015/2016; results of the Phase I ESA indicated that asbestos containing material (ACM) and lead based paint (LBP) may be present in the on-site structure along with electrical ballasts that might contain polychlorinated biphenyls (PCBs). A 1,000-gallon, steel, underground storage tank (UST) was closed in place (in 1994) on the adjacent Eads Motors automotive repair shop, located directly west-southwest of the site. Based on its distance, the local topography, and an estimated groundwater flow direction, the UST was identified as a recognized environmental condition (REC) associated with the site. No other RECs were identified in the Phase I ESA (Seagull, 2016).

Limited Phase II ESAs were conducted by SCI Engineering, Inc. (SCI), in July 2016 and June 2017 to investigate potential impact to on-site soil and groundwater. SCI advanced six soil borings at the site (B-1 through B-6). The borings extended to a depth of 8 feet (ft) below ground surface (bgs), at which point they encountered refusal on bedrock. The soils were screened on

approximate 2-foot-vertical intervals using a photoionization detector (PID).with readings ranging from 2.9 to 7.9 parts per million (ppm). Temporary piezometers were installed in each boring in order to collect groundwater samples. Only the piezometers at boring B-1 and B-4 yielded enough water to sample. After collecting the groundwater sample, all temporary piezometers were abandoned. Soil and groundwater samples were analyzed for Resource Conservation and Recovery Act (RCRA) 8 metals (which included arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) and polynuclear aromatic hydrocarbons (PAHs). SCI compared soil and groundwater analytical results to Missouri Department of Natural Resources (MDNR) Default Target Levels (DTLs) and background metal concentrations for Miller County (SCI, 2017); MDNR DTLs are the most conservative target levels established by the state and are based on unrestricted land use. A figure showing soil boring and groundwater piezometer locations is provided as Attachment 1.

Five soil samples exceeded the background concentration for lead, which is 41.75 milligrams per kilogram (mg/kg) based on the maximum background concentrations in Miller County (SCI, 2017). These samples included B-1 (0-2 ft bgs) at 1,040 mg/kg, B-2 (0-2 ft bgs) at 202 mg/kg, B-2 (4-6 ft bgs) at 132 mg/kg, B-3 (0-2 ft bgs) at 1,180 mg/kg, and B-4 (0-3 ft bgs) at 84.2 mg/kg.

Five soil samples exceeded the background concentration for arsenic, which is 7.57 mg/kg based on the maximum background concentrations in Miller County (SCI, 2017). These include B-4 (0-3 ft bgs) at 8.56 mg/kg, B-4 (6-8 ft bgs) at 14.7 mg/kg, B-5 (0-3 ft bgs) at 10 mg/kg, B-5 (4-6 ft bgs) at 12.9 mg/kg, and B-6 (4-6 ft bgs) at 14.9 mg/kg. All analytical results for soil samples are included in Table 1 in Attachment 2.

The groundwater sample collected at the boring B-1 location exceeded the DTL for lead, which is 0.015 milligrams per liter (mg/L); the groundwater sample from B-1 contained 8.95 mg/L. The groundwater sample collected at the B-4 location exceeded DTLs for PAHs, including benzo(a)anthracene and benzo(b)fluoranthene (which have DTLs of 0.000103 and 0.0000627 mg/L, respectively). The groundwater sample from B-4 contained 0.000109 of benzo(a)anthracene and 0.000104 mg/L of benzo(b)fluoranthene (SCI, 2016 and SCI, 2017). All analytical results for groundwater samples are included in Table 2 in Attachment 2.

Groundwater contamination is not addressed in this ABCA.

1.4 Project Goal

The planned reuse for the site is green space (Seagull, 2017).

2.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

This section includes information on cleanup responsibilities and applicable laws/regulations and cleanup standards for this site.

2.1 Cleanup Oversight Responsibility

The responsible party for cleanup is the City of Iberia (property owner). The cleanup would likely be performed by a city contractor and overseen by the MDNR. In addition, all documents prepared for the site would likely be submitted to MDNR for review and comment.

2.2 Cleanup Standards for Major Contaminants

The MDNR Risk-Based Corrective Action (MRBCA) guidance will be used to establish cleanup standards. Since exposure of lead and arsenic in the surface (0-3 feet bgs) is the most likely exposure pathway, the Risk-Based Target Levels (RBTLs) for surface soils (covering ingestion, inhalation, and dermal contact) are expected to be used to determine the extent of contaminated soil at the site. In this ABCA, the background concentration for Miller County for arsenic from Tidball (1984) will be used for determining the extent of soil contamination for purposes of excavation. An MRBCA Tier I Risk Assessment is expected to be completed prior to remediation activities to evaluate exposure routes and receptor risks (and confirm/define applicable cleanup criteria).

2.3 Laws and Regulations Applicable to the Cleanup

Laws and regulations that will likely be applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, the MDNR MRBCA standards, and City of Iberia by-laws. Applicable Federal, state, and local laws regarding procurement of contractors to conduct the cleanup would be followed.

In addition, all appropriate permits (e.g., Missouri One-Call, soil transport/disposal manifests) would be obtained by the responsible parties prior to work commencing.

3.0 EVALUATION OF CLEANUP ALTERNATIVES

This section evaluates three cleanup alternatives for the site.

3.1 Cleanup Alternatives Considered

To address contamination at the site, three different alternatives were considered, including: Alternative #1 - No Action; Alternative #2 – MRBCA Risk Assessment and Excavation and Disposal of Contaminated Soil and Alternative #3 - MRBCA Risk Assessment and Installation of a Cap. Cleanup of groundwater is not considered in these alternatives.

3.2 Evaluation of Cleanup Alternatives

To satisfy EPA requirements, the effectiveness, implementability, and cost of each alternative must be considered prior to selecting a recommended cleanup alternative.

3.3 Alternative 1 – No Action

Alternative 1 consists of no remedial action performed on the site.

Assumptions

An MRBCA Risk Assessment would not be conducted in a no-action scenario.

Effectiveness

Performing no action would be ineffective in controlling or preventing the apparent exposure of receptors to contamination at the site.

Implementability

No action is easy to implement since no action would be conducted.

Cost

There will be no costs under Alternative #1.

3.4 Alternative 2 – MRBCA Risk Assessment Plus Excavation and Disposal of Contaminated Soil

Alternative 2 consists of conducting an MRBCA Tier I Risk Assessment followed by removal/disposal of all contaminated surface soil (assumed to be 800 square feet in area based on Tier 1 RBTLs and background arsenic concentration for Miller County) to a depth of three feet below ground surface.

Assumptions

The estimated 800 square foot area of contamination (extending to 3 feet below grade) was estimated based on previous surface soil samples that exceeded the Tier 1 RBTLs for lead (borings B-1 and B-3). Surface soil (0-3 feet bgs) is impacted with arsenic in soil boring B-5 at a concentration above the background concentration for Miller County. It should be noted that arsenic was not analyzed for soil borings B-1 through B-3. Additional sampling is not planned at the site prior to excavation. Following the excavation, confirmation soil samples will be screened with an x-ray fluorescence detector, collected with a direct push rig and submitted for analysis for arsenic and lead. Temporary fencing will be installed around the excavation until analytical results are received from the lab. After confirmation that the contamination has been removed, the temporary fencing will be removed and the excavation will be brought to grade with clean fill.

Effectiveness

Performing a Risk Assessment would assure that contaminated media is cleaned up only to levels that are applicable to this site (if unacceptable risks to human health and the environment are determined to be present). Additional corrective action could be required after performing an MRBCA Risk Assessment.

Excavation of an area of 800 square feet of impacted soils to depth of approximately three ft bgs (approximately 89 cubic yards) would eliminate impacted soils that could be ingested, inhaled, or come into direct contact with human receptors.

Implementability

The MRBCA Risk Assessment is easy to implement. Excavation with off-site disposal is implementable since the site is large enough to accommodate the equipment required to excavate the soil. An area of approximately 800 square feet of soil to a depth of three feet would be excavated and clean fill material would be placed into the excavation. Coordination (e.g., dust suppression and monitoring) during cleanup activities and short-term disturbance to the community (e.g., trucks transporting contaminated soils and backfill) are anticipated. Ongoing monitoring and maintenance would not be required following excavation and offsite disposal.

Cost

The cost to implement Alternative #2 is estimated to be approximately \$41,660. Details of the cost estimate, along with the assumptions made, are provided in Attachment 3.

3.5 Alternative 3 – MRBCA Risk Assessment and Installation of a Cap

Alternative 3 consists of conducting an MRBCA Tier I Risk Assessment followed by placement of an asphalt cap as a barrier between receptors and known contaminants at the surface.

Assumptions

After completion of the risk assessment, an asphalt cap 3-4 inches thick covering approximately 800 square feet (area that would be excavated under cleanup alternative 2) would be placed on top of the contaminated soil. This cap would be a permanent feature of the site and would require routine inspections/maintenance to assure protectiveness of the remedy. Costs for inspection of the cap are not included in this ABCA.

Effectiveness

Performing a Risk Assessment would assure that contaminated media is cleaned up only to levels that are applicable to this site (if unacceptable risks to human health and the environment are determined to be present). The cap would prevent contaminated soil from coming into contact with receptors on the site.

Implementability

The MRBCA Risk Assessment is easy to implement. Approximately 800 square feet of soil would be covered by a cap, which would be relatively easy to implement.

Cost

The cost to implement Alternative #3 is estimated to be approximately \$31,900. The costs for annual inspections of the cap are not included in this ABCA. Details of the cost estimate, along with the assumptions made, are provided in Attachment 3.

3.6 Recommended Cleanup Alternative

Alternative #1 – No Action does not provide any cleanup of impacted soil and liability for cleanup would remain at the site. The less expensive alternative of the other options is Alternative #3 - MRBCA Risk Assessment and Installation of a Cap. However, Alternative #3 does not remove the contaminated soil and requires management of it indefinitely (or until applicable conditions change). The proposed cap is also an awkward fix and limits the use of the property; a significant portion of the site could be capped with asphalt. If a permanent asphalt cap is not desirable [along with the Activity Use and Limitation (AUL) that accompanies this

alternative], then Alternative #2- MRBCA Risk Assessment and Excavation and Disposal of Contaminated Soil would be a more suitable option with less restrictions.

4.0 **REFERENCES**

Missouri Department of Natural Resources, 2006, Departmental Missouri Risk-Based Corrective Action (MRBCA) Technical Guidance.

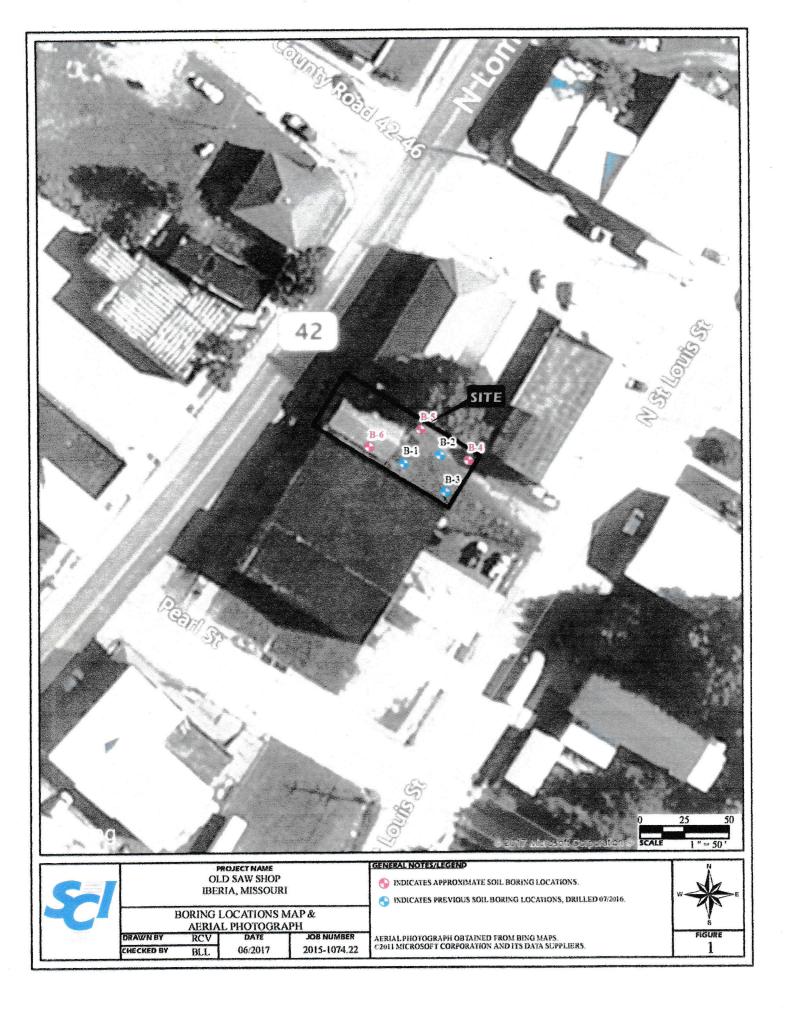
SCI Engineering, Inc., 2016. Limited Phase Two Environmental Site Assessment, Old Saw Shop, Iberia, Missouri.

SCI Engineering, Inc., 2017. Limited Phase Two Environmental Site Assessment, Old Saw Shop, Iberia, Missouri.

Seagull Environmental Technologies, Inc., 2016. Phase I Environmental Site Assessment, Old Saw Shop Site, 835 State Highway 42, Iberia, Missouri.

Tidball, Ronald R., 1984. Geochemical Survey of Missouri, USGS Professional Paper 954-H, I.

Attachment 1 Soil Boring Location Map



Attachment 2 Tables

Table 1 Soil Analytical Data Old Saw Shop Iberia, Missouri

June 11, 2016 Results

Chemical	Units	MRBCA	MRBCA	B-1	B-1	B-2	B-2	B-3	B-3
		DTL	Tier 1 RBTL	0-1 ft	4-6 ft	0-2 ft	4-6 ft	0-2 ft	4-5.5 ft
Date			Surface Soils (Residential)	6/11/16	6/11/16	06/21/16	6/21/16	6/21/16	6/21/16
Benzene	mg/kg	0.0561	177	< 0.0012	<0.0235	<0.0011	<0.0014	<0.0017	<0.038
Ethylbenzene	mg/kg	39.9	7450	< 0.0059	<0.118	<0.0054	<0.0072	<0.0083	<0.19
Toluene	mg/kg	29.8	6210	< 0.0059	<0.118	<0.0054	<0.0072	<0.0083	<0.19
Total Xylenes	mg/kg	24.7	7830	< 0.0059	<0.018	<0.0054	<0.0072	<0.0083	<0.19
TPH GRO	mg/kg	385	35,400	<0.593	68.2	<0.538	<0.725	<0.830	<19
TPH DRO	mg/kg	4150	140,000	<3050	172	<0.126	<205	<322	86.5
TPH ORO	mg/kg	124,000	124,000	<3050	2150	260	<205	898	901
Lead	mg/kg	260	260	1040	31.4	202	132	1180	26.6

June 6, 2017 Results

Chemical	Units	MRBCA	MRBCA	B-4	B-4	B-5	B-5	B-6	B-6
		DTL	Tier 1 RBTL	0-3 ft	6-8 ft	0-3 ft	4-6 ft	0-3 ft	4-6 ft
Date	1		Surface Soils	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17	6/6/17
			(Residential)						
Benzo(a)pyrene	mg/kg	0.62	0.62	0.006	<0.005	<0.005	<0.005	0.073	<0.004
Benzo(b)fluoranthene	mg/kg	6.19	6.19	0.009	<0.005	<0.005	<0.005	0.142	<0.004
Benzo(k)fluoranthene	mg/kg	62	62	<0.004	< 0.005	< 0.005	<0.005	0.049	< 0.004
Chrysene	mg/kg	599	599	0.005	<0.005	<0.005	<0.005	<0.04	<0.004
Fluoranthene	mg/g	2280	2280	0.008	< 0.005	<0.005	< 0.005	0.044	< 0.004
Phenanthrene	mg/kg	158	2170	0.005	<0.005	<0.005	<0.005	<0.04	<0.004
Pyrene	mg/kg	1500	2730	0.008	< 0.005	<0.005	<0.005	0.072	<0.004
Arsenic	mg/kg	3.89	9 ¹	8.56	14.7	10	12.9	7.32	14.9
Barium	mg/kg	2040	15,000	234	487	241	269	159	401
Cadmium	mg/kg	9.31	16.8	0.5	0.55	0.24	0.37	0.27	0.42
Chromium	mg/kg	74,600	74,600	20.9	44.7	28.1	44.3	32.5	60.1
Lead	mg/kg	3.74	260	84.2	17.9	21.1	14.2	14.1	14.7
Mercury	mg/kg	2.19	46.3	0.088	0.046	0.061	0.045	0.039	0.02
Selenium	mg/kg	6.27	380	<3.92	4.23	<3.77	5.21	<3.92	5.41
Silver	mg/kg	16.2	374	<0.49	<0.45	<0.47	<0.47	<0.49	<0.48

Notes:

¹ = Background concentration for arsenic in Miller County (Tidball, 1984)

< = not detected at concentration following "<" sign

ft = feet below grade

mg/kg = milligrams per kilogram

MRBCA DTL = Missouri Risk-Based Corrective Action Default Target Level

MRBCA RBTL = Missouri Risk-Based Corrective Action Risk-Based Target Level

NA = not applicable

Shaded cells indicate concentration exceeds the MRBCA Tier 1 RBTL for residential surface soils

Table 2 Groundwater Analytical Data Old Saw Shop Iberia, Missouri

Chemical	Units	MRBCA	B-1	B-4
Date	7	DTL	6/23/16	6/6/17
Benzene	mg/L	0.005	<.002	
Ethylbenzene	mg/L	0.7	<.005	
Toluene	mg/L	1	< 0.005	
Total Xylenes	mg/L	10	<.005	
TPH GRO	mg/L	18.1	<0.500	
TPH DRO	mg/L	34.3	25.3	
TPH ORO	mg/L	31.8	<20	
Benzo(a)anthracene	mg/L	0.000103		0.000109
Benzo(b)fluoranthene	mg/L	0.0000627		0.000104
Benzo(ghi)perylene	mg/L	0.0264		0.000108
Chrysene	mg/L	0.0103		0.000117
Fluoranthene	mg/L	0.164		0.000191
Naphthalene	mg/L	0.00109		0.000163
Phenanthrene	mg/L	0.075		0.000118
Pyrene	mg/L	0.0961		0.000159
Arsenic	mg/L	0.01		<0.025
Barium	mg/L	2.0		0.286
Cadmium	mg/L	0.005		<0.002
Chromium	mg/L	0.1		< 0.005
Lead	mg/L	0.015	8.95	<0.015
Mercury	mg/L	0.0507		< 0.0002
Selenium	mg/L	0.05		<0.04
Silver	mg/L	0.0781		< 0.005

Notes:

< = not detected at concentration following "<" sign

ft = feet below grade

mg/L – milligrams per liter

MRBCA DTL = Missouri Risk-Based Corrective Action Default Target Level

Attachment 3 Budget Details

					w 15%
MRBCA Tier 1 Risk Assessment	Number	Unit	Unit Cost	Total Cost	
MRBCA Phase I Risk Assessment	1	lump sum	4000	4000	4000.00
Excavation					
bobcat	3	days	275.00	825.00	948.75
back hoe	3	days	700.00	2100.00	2415.00
dump truck #1	2	days	1100.00	2200.00	2530.00
dump truck #2	2	days	1100.00	2200.00	2530.00
dump truck #3	1	days	1100.00	1100.00	1265.00
labor -excavation and transport	_				
truck driver #1	2	days	100.00	200.00	230.00
truck driver #2	2	days	100.00	200.00	230.00
truck driver #3	1	days	100.00	100.00	115.00
equipment operator	3	days	100.00	300.00	345.00
equipment laborer	3	days	100.00	300.00	345.00
Soil disposal @ Jeff City Landfill	89	су	40.00	3560.00	4094.00
Fill material	89	су	10.00	890.00	1023.50
, in material	00	-,	20100	000100	1010100
temporary fencing	150	linear ft	2.00	300.00	345.00
fence posts every 10 ft	11	each	4.00	44.00	50.60
Soil testing					
XRF	1	day	577.5	577.5	664.13
Geoprobe with mobilization	1	day	2000	2000	2300
Confirmation Samples					
Lead	8	each	7.00	56.00	64.40
Arsenic	8	each	7.00	56.00	64.40
Labor - environmental tech	3	day	480.00	1440.00	1440.00
Pickup truck	3	day	90.00	270.00	310.50
Per diem	3	day	140.00	420.00	483.00
Total Excavation					21793.28
Assumptions:					
Area of impacted soil	800	sq ft =	89	sq yds	
Volume of impacted soil	89	sq yds	3	ft deep	89 cubic yd
Iberia - Jeff City	1	hour			
Load truck (12 cy)	0.5	hour			
Loads	89	су	12	7	loads
Load round trip	2.5	hour	3 load	s per day pe	er truck
3 dump trucks per day	3	days	to complet	e excavatio	n

Alternative 2

3 days for excavation

1 day for backfill

Alternative 2

- 1 environmental tech to check soil with XRF tool and collect confirmation samples
- 1 confirmation sample on each end of excavation (2 end samples), 1 confirmation sample every 20 feet along the long sides of the excavation (2 x 3 or 6 samples).

7 day turnaround time on metals analysis. The excavation would be fenced until analytical results are received.

Plans, Project Management and Repo	rting				
Review reports	40	hour	65	2600	2600
Develop Health & Safety plan	20	hour	80	1600	1600
Develop Work plan	40	hour	80	3200	3200
Final report	40	hour	80	3200	3200
Review	8	hour	100	800	800
Admin	4	hour	59	236	236
CAD	4	hour	57	228	228
Total report and planning					11864
Project management	32	hour	100	3200	3200
Estimated costs					
MRBCA Tier I Risk Assessment					4000
Excavation, soil disposal and backfill					21793
Plans and Reporting					11864
Project Management					4000
			Total		41657

Page 2 of 2

Alternative 3

					w 15%
	Number	Unit	Unit Cost	Total Cost	markup
MRBCA Tier 1 Risk Assessment	1	lump sum	4000.00	4000.00	4000.00
Capping					
3" thick asphalt & 3" base rock	800	sq ft	4.50	3600.00	4140.00
includes labor, materials and transp	oort				
LTS Fee	1	each	15000.00	15000.00	15000.00
Plans, Project Management and Rep	orting				
Review reports	40	hour	65.00	2600.00	2600.00
Develop Health & Safety plan	20	hour	80.00	1600.00	1600.00
Develop Work plan	8	hour	80.00	640.00	640.00
Final report	16	hour	80.00	1280.00	1280.00
Review	4	hour	100.00	400.00	400.00
Admin	2	hour	59.00	118.00	118.00
CAD	2	hour	57.00	114.00	114.00
Total report and planning					6752.00
Project management	20	hour	100.00	2000.00	2000.00

Assumptions:

Maintenance of asphalt cap is not included in this cost estimate

Size of cap is based on arsenic plus lead concentrations above MDNR Tier 1 RBTLs for soil

Estimated costs

MRBCA Tier I Risk Assessment		4000
Asphalt cap		4140
LTS Fee		15000
Plans and Reporting		6752
Project Management		2000
	Total	31892



Linda Conner Lake of the Ozarks Council of Local Governments P.O. Box 3553 Camdenton, MO 65020

RECE DEC 0 2 2019

RE: Old Saw Shop Brownfields/Voluntary Cleanup Program (BVCP) site, 835 Hwy 42, Iberia, MO

Dear Ms. Conner:

The Old Saw Shop has been accepted into the BVCP and I will be the project manager. I have reviewed the November 14, 2019 Remedial Action Plan (RAP) from Seagull Environmental Technologies, Inc., for this site. The RAP proposes excavation of contaminated soil, postexcavation confirmation sampling, and completion of a risk assessment in accordance with the 2006 Missouri Risk-Based Corrective Action guidance document.

The RAP is approved with the following condition. Once a remediation contractor is selected, the contractor must submit a completed signature page (i.e. all signature blanks signed by appropriate personnel) from the BVCP's Quality Assurance Project Plan (QAPP) for BVCP sites. If the contractor intends to follow the BVCP QAPP with no modifications, it is only necessary to submit a completed signature page, rather than the entire QAPP and QAPP addendum.

Please contact me as soon as possible when your remediation contractor is hired. If you have any questions, please contact me by phone at 573-526-0181, by mail at the Environmental Remediation Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or by email at jennifer.surber@dnr.mo.gov.

Sincerely,

ENVIRONMENTAL REMEDIATION PROGRAM

Jennifer Surber, R.G. Environmental Specialist Brownfields/Voluntary Cleanup Section

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JS: ii

c: Kristin Allan-Tipton, EIERA Constraint States (Constraint) Ms. Kaylee Thomas, Seagull Environmental Technologies, Inc., 121 NE 72nd Street, Gladstone, MO 64118

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Seagull Environmental Technologies, Inc.

121 NE 72nd Street Gladstone, Missouri 64118 www.seagullenvirotech.com

November 14, 2019

Ms. Kristin Allan Tipton EIERA Development Director P.O. Box 744 Jefferson City, Missouri 65102

Subject:Remedial Action PlanOld Saw Shop Site, Iberia, MissouriMissouri Brownfields Revolving Loan Fund Support Contract

Dear Ms. Tipton:

Seagull Environmental Technologies, Inc. (Seagull) is submitting the attached Remedial Action Plan for the Old Saw Shop site in Iberia, Missouri.

If you have any questions or comments, please contact the project manager at (816) 616-0026.

Sincerely,

Kaylee Thomas

Kaylee Thomas Project Manager

umorn

Hieu Q. Vu, PE Project Director

REMEDIAL ACTION PLAN

OLD SAW SHOP SITE IBERIA, MISSOURI

Prepared For:

Environmental Improvement and Energy Resources Authority P.O. Box 744 Jefferson City, Missouri 65102

November 14, 2019

Prepared By:

Seagull Environmental Technologies, Inc. 121 NE 72nd Street Gladstone, Missouri 64118

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1.0 INTRODUCTION

Lake of the Ozarks Council of Local Governments (LOCLG) has been awarded a Brownfields Cleanup Grant through the United States Environmental Protection Agency (EPA) and the Environmental Improvement and Energy Resources Authority (EIERA) to address contamination at the Old Saw Shop site in Iberia, Missouri. Specifically, remedial activities will be conducted to address contaminated surface soil identified at the site. LOCLG will use these grant funds to conduct remediation design and cleanup to restore the property for use as a green space, as described in this Remedial Action Plan (RAP).

The Old Saw Shop site is enrolled in the Missouri Department of Natural Resources (MDNR) Brownfields/Voluntary Cleanup Program (BVCP). This RAP incorporates the MDNR BVCP Quality Assurance Project Plan (QAPP) to ensure compliance with all quality assurance/quality control (QA/QC) requirements.

In accordance with EPA Brownfields Grant requirements, this RAP implements a process of QA/QC protocols consistent with *EPA Requirements for Quality Assurance Project Plans – EPA QA/R-5* (EPA 2001).

The following sections outline proposed field, laboratory, and associated quality control procedures in detail.

1.1 SITE LOCATION AND DESCRIPTION

The site is a vacant commercial property that encompasses approximately 0.05 acre in a primarily commercial area of Iberia. The site address is 835 State Highway 42, located in downtown Iberia, Miller County, Missouri. The site is on the east side of Highway 42 near the Highway 42 and West (W.) Main Street intersection (see Appendix A, Figures 1 and 2). The site is bounded to the northwest by State Highway 42 with a U.S. Post Office beyond, to the northeast by an apartment building with W. Main Street beyond, to the southeast by a vacant lot with North (N.) St. Louis Street beyond, and to the west-southwest by Eads Motors automotive repair shop with Pearl Street beyond. The site is included on the Iberia, Missouri, U.S. Geological Survey (USGS) 7.5-minute topographic series map (USGS 1985) (see Appendix A, Figure 1). The site is located in Section 30, Township 29 North, and Range 12 West. The coordinates for the approximate center of the subject property are 38.091021 degrees north latitude and 92.293216 degrees west longitude. The parcel identification number for the subject property is 179030002004003000 (Miller County Assessor Geographical Information System [GIS] 2019).

1.2 PREVIOUS ASSESSMENTS

This section summarizes the following previous assessment reports completed for the site:

- Phase I Environmental Site Assessment (ESA) for Old Saw Shop Site in Iberia, Missouri. Seagull Environmental Technologies, Inc. January 2016.
- Lead-Based Paint (LBP) Survey for Old Saw Shop Site in Iberia, Missouri. SCI Engineering, Inc. July 2016.
- Asbestos Report for Old Saw Shop Site in Iberia, Missouri. SCI Engineering, Inc. July 2016.
- Limited Phase II ESA for Old Saw Shop Site in Iberia, Missouri. SCI Engineering, Inc. August 2016.
- Limited Phase II ESA for Old Saw Shop Site in Iberia, Missouri. SCI Engineering, Inc. June 2017.
- Phase I ESA Update for Old Saw Shop Site in Iberia, Missouri. Professional Environmental Engineers, Inc. January 2018.
- Analysis of Brownfields Cleanup Alternatives (ABCA) for Old Saw Shop Site in Iberia, Missouri. Professional Environmental Engineers, Inc. March 2018.
- Phase I ESA Update for Old Saw Shop Site in Iberia, Missouri. Professional Environmental Engineers, Inc. November 2018.

The reports listed above were submitted to MDNR with the BVCP application. The Phase I ESA, LBP Survey, Asbestos Report, Phase II ESA, Phase I ESA Updates, and ABCA have comprised the primary assessments of the site. A summary of those assessments follows.

Seagull Environmental Technologies, Inc. (Seagull) conducted a Phase I ESA at the site in January 2016. Seagull identified several recognized environmental conditions (REC) and environmental concerns associated with the subject property, including (1) one underground storage tank (UST) adjacent to the west-southwest of the subject property, (2) electrical ballasts that potentially contain polychlorinated biphenyls (PCB), (3) potentially asbestos containing material, and (4) lead-based paint within the (now demolished) site building. The Phase I ESA recommended a Phase II ESA to determine to what extent, if any, the UST may have leaked and impacted soil and/or groundwater. In addition, the Phase I ESA recommended asbestos and LBP inspections (Seagull 2016).

The July 2016 LBP survey identified several components within the 1,450-square-foot (ft²) site building that contained LBP. Positive results included interior walls, trim, and doors, and exterior window trim,

2

ceiling material, and columns (SCI Engineering, Inc. [SCI] 2016a). The July 2016 asbestos inspection identified approximately 350 ft² of asbestos containing exterior transite siding (SCI 2016b).

The August 2016 Limited Phase II ESA was conducted to determine to what extent, if any, the UST may have leaked and impacted soil and groundwater. The Phase II investigation included the advancement of three soil borings at the subject property. Results indicated concentrations of lead in soil and groundwater that exceeded default target levels (DTL) and maximum background concentrations for Miller County (see Table 1 and 2 below) (SCI 2016c). The June 2017 Limited Phase II ESA was conducted to further delineate the extent of contamination in soil and groundwater. Results indicated concentrations of lead and arsenic in soil that exceeded MDNR DTLs (see Table 1 below). The Phase II ESA stated the site building was demolished prior to Phase II site activities (SCI 2017).

The January 2018 Phase I ESA Update did not identify additional findings regarding RECs, controlled RECs, historical RECs, or de minimis conditions except for additional findings from the Phase II ESA (Professional Environmental Engineers, Inc. [PE] 2018a). The November 2018 Phase I ESA Update also did not identify additional findings regarding RECs, controlled RECs, historical RECs, or de minimis conditions for additional findings from the Phase II ESA. The January and November 2018 Phase I ESA Updates recommended additional investigations to delineate the extent of impacts to soil and groundwater, evaluate potential exposure routes and receptors, and evaluate current/future land use (PE 2018b).

TABLE 1

Sample Identification	Depth Interval (feet bgs)	Arsenic Result (mg/kg)	Lead Result (mg/kg)				
4	August 2016 – Limited Phase II Environmental Site Assessment						
B-1 (0-1')	0-1	-	1,040				
B-2 (0-2')	0-2	-	202				
B-3 (0-2')	0-2	-	1,180				
B-1 (4-6')	4-6	-	31.4				
B-2 (4-6')	4-6	-	132				
B-3 (4-5.5')	4-5.5	-	26.6				
Duplicate (B-1, 4-6')	4-6	-	16.8				
	June 2017 – Phase II Environ	mental Site Assessment	• • • • • • • • •				
B-4 (0-3')	0-3	8.56	84.12				
B-5 (0-3')	0-3	10	21.1				
B-6 (0-3')	0-3	7.32	14.1				
B-4 (6-8')	6-8	14.7	17.9				
B-5 (4-6')	4-6	12.9	14.2				
B-6 (4-6')	4-6	14.9	14.7				

SOIL SAMPLE RESULTS FOR ARSENIC AND LEAD OLD SAW SHOP SITE, IBERIA, MISSOURI

Sample Identification	Depth Interval (feet bgs)	Arsenic Result (mg/kg)	Lead Result (mg/kg)
B-6 (4-6') DUP	4-6	4.68	4.82
MRBCA DTL		3.89	3.74
MRBCA Tier 1 RBTL – Residential Subsurface Soil		-	260
MRBCA Tier 1 RBTL - Nor	n-Residential Subsurface Soil	15.9	660
USGS Maximum for Miller (County	7.57	41.75

Notes:

Shaded areas indicate results above the USGS maximum concentration of arsenic for Miller County (background) soils and results also above the respective MRBCA Tier 1 RBTL – Residential Subsurface Soil (Soil Type 1 - Sandy).

bgsBelow ground surfaceDTLDefault Target Levelmg/kgMilligrams per kilogramMRBCAMissouri Risk-Based Corrective Action

RBTL Risk-Based Target Level

USGS United States Geological Survey

TABLE 2

GROUNDWATER SAMPLE RESULTS FOR ARSENIC AND LEAD OLD SAW SHOP SITE, IBERIA, MISSOURI

Sample Identification	Depth (feet bgs)	Arsenic Result (ppm)	Lead Result (ppm)			
August 2016 – Limited Phase II Environmental Site Assessment						
B-1	11	-	8.95			
June 2017 – Phase II Environmental Site Assessment						
B-4	8	< 0.001	< 0.015			
B-4 DUP	8	<0.001	< 0.015			
MRBCA DTL		0.01	0.015			

Notes:

Shaded areas indicate results above the respective MRBCA DTL.

bgs	Below ground surface	DTL	Default Target Level
MRBCA	Missouri Risk-Based Corrective Action	ppm	Parts per million

2.0 PROJECT ORGANIZATION

This section summarizes the project organization for the remedial action.

2.1 **RESPONSIBLE AGENCY**

LOCLG is a sub-grantee to EIERA for this project. MDNR is providing the primary technical review of this RAP, as the site is currently enrolled in the MDNR BVCP program.

2.2 **PROJECT PERSONNEL AND SCHEDULE**

Persons involved at this site and their roles and/or responsibilities are included in Table 2 below. Table 3 outlines the tentative project schedule.

TABLE 3

PROJECT PERSONNEL OLD SAW SHOP SITE, IBERIA, MISSOURI

Name	Responsibilities	Phone Number		
Kristin Allan Tipton	Overall Brownfields project	573-751-4919		
	management			
Jonathon Harrington	General project coordination and			
	programmatic oversight			
Jennifer Surber	General project coordination and	573-526-8913		
	reviews, and approvals			
Linda Conner	General project coordination and	573-346-5692		
	oversight			
To be determined	Conduct remedial activities, arrange	To be determined		
	disposal, and complete site restoration			
	activities			
Subcontractor Personnel				
To be determined	Laboratory analytical procedures and To be determi			
	reporting; laboratory quality control			
	Kristin Allan Tipton Jonathon Harrington Jennifer Surber Linda Conner To be determined Subcon	Kristin Allan Tipton Overall Brownfields project management Jonathon Harrington General project coordination and programmatic oversight Jennifer Surber General project coordination and programmatic oversight, technical reviews, and approvals Linda Conner General project coordination and oversight To be determined Conduct remedial activities, arrange disposal, and complete site restoration activities Subcontractor Personnel To be determined		

Notes:

BVCP Brownfields/Voluntary Cleanup Program

EIERA Environmental Improvement and Energy Resources Authority

LOCLG Lake of the Ozarks Council of Local Governments

MDNR Missouri Department of Natural Resources

TABLE 4

PROJECT SCHEDULE OLD SAW SHOP SITE, IBERIA, MISSOURI

Task	Anticipated Completion Timeline
MDNR review, revision, and approval of Remedial Action Plan	Determined by MDNR
Field activities completed To be determined	
Laboratory analysis completed Within 15 days of completion of field act	
Submission of draft report Within 45 days of completion of field act	
Report review, revision, and submission of final report Within 10 days of EIERA approval of d	
	report

Notes:

EIERA Environmental Improvement and Energy Resources Authority MDNR Missouri Department of Natural Resources

Copies of the final RAP will be distributed as indicated below. Additionally, the remediation contractor

will distribute the Remedial Action Completion Report to the same contacts.

Missouri Department of Natural Resources

Brownfields / Voluntary Cleanup Program P.O. Box 176

1738 E. Elm Street Jefferson City, Missouri 65102 Attn: Ms. Jennifer Surber

Lake of the Ozarks Council of Local Governments PO Box 3553 Camdenton, Missouri 65020 Attn: Linda Conner

Environmental Improvement and Energy Resources Authority P.O. Box 744 Jefferson City, Missouri 65102 Attn: Ms. Kristin Allan Tipton

3.0 PROJECT OBJECTIVES AND CLEANUP RATIONALE

The purpose of this RAP is to outline the specific field, laboratory, and quality control procedures that will be applied to address remedial activities planned for the site and ensure generation of data usable for final determinations regarding post-remediation site conditions. Through these specific efforts, BVCP cleanup requirements will also be addressed in a manner that allows for No Further Action consideration by MDNR, as addressed principally in the Missouri Risk-Based Corrective Action (MRBCA) Technical Guidance (MDNR 2006).

Further, this RAP ensures quantitative and definitive-level data will be obtained through clearance sampling, following specific QA/QC procedures. Specific activities conducted during the remedial action to achieve the project objectives include:

- Comprehensive oversight and documentation of remedial activities.
- Production of an MRBCA Tier I Risk Assessment
- Collection of post-cleanup confirmation samples for laboratory analysis to ensure attainment of cleanup goals.
- Preparation of a Remedial Action Completion Report summarizing field activities and laboratory results.

The tasks referenced above will be supported through application of relevant Standard Operating Procedures (SOP), EPA technical guidance documents, and industry-accredited analytical methods.

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3.1 PROBLEM DEFINITION AND SAMPLING OBJECTIVE

Previous assessments have determined that lead- and arsenic-contaminated soil is present at the site. For reference, Appendix B contains site photographs. Future plans are to develop the site as a green space. The primary objective of the remedial action is to remove and properly dispose of hazardous materials that pose a health threat to site users and could impede redevelopment. Attaining this project objective, while conducting the remedial action in accordance with BVCP cleanup requirements, should allow for unrestricted use of the property and No Further Action consideration by MDNR.

3.2 PROJECT DESCRIPTION

This remedial action will remove contaminated soil that could pose a threat to future site use. The collection of confirmation soil samples will be conducted to ensure site cleanup and regulatory clearance goals have been achieved.

4.0 PROJECT QUALITY OBJECTIVES

The following sections describe the project quality objectives for the remedial action.

4.1 **REVIEW AND APPROVAL ASSISTANCE**

Assistance for review and approval of quality assurance documents can be deferred to the State program, with mutual agreement between EPA, the State program, and the cleanup grant recipient. The remedial action for this site is designed to be implemented under the MDNR BVCP. The site is enrolled in the MDNR BVCP.

4.2 ADOPTION OF STATE QUALITY ASSURANCE PROJECT PLAN

This RAP adopts the *MDNR Quality Assurance Project Plan for Brownfields/Voluntary Cleanup Program Sites* (see Appendix C), and incorporates a Site-Specific Quality Assurance Addendum (SSQA) to the QAPP (see Appendix D). This is allowed for environmental data collection for confirmatory sampling following remedial activities, as described in *Section A.6.3 Remedial Action Plans/Risk Management Plans* of the MDNR QAPP.

4.3 DATA QUALITY OBJECTIVES

The primary data quality objective (DQO) is to provide valid data of demonstrated and documented quality to accurately verify the effectiveness of remedial activities by the collection of clearance samples

and laboratory verification analyses. Quality objectives will be realized through field and laboratory methods consistent with standard industry practice, applicable EPA analytical requirements, and the specific procedures outlined herein. Data quality will be further demonstrated through field sampler and laboratory quality control reviews with regard to specific data quality indicators as discussed in the following section. This approach will allow for defensible project decisions regarding the overall degree of environmental impact and associated risk. Standard industry QA/QC protocols will be followed to ensure generation of data usable for final determinations regarding post-abatement site conditions and subsequent response action, if necessary. The MDNR QAPP and SSQA discuss QA/QC procedures in more detail. Additional details regarding specific quality control procedures are presented in Section 7.0.

4.4 DATA QUALITY INDICATORS

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Laboratory data quality will be measured in terms of precision, accuracy, representativeness, completeness, comparability, and sensitivity, as defined below. Various quality control samples will be collected and analyzed to quantitatively evaluate these parameters. Associated quality control procedures are discussed in Section 7.0. Specific measurement criteria are outlined in Section B.5 of the MDNR BVCP QAPP.

Precision:	A measure of reproducibility of analyses under a given set of conditions.
Accuracy:	A measure of the bias that exists in a measurement system.
Representativeness:	The degree to which sampling data accurately and precisely depict selected characteristics.
Completeness:	The measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under "normal" conditions.
Comparability:	The degree of confidence with which one data set can be compared to another.
Sensitivity:	The concentrations at which the analytical technology is able to detect the presence of specific analytes (i.e., detection limits).

5.0 REMEDIAL ACTION TASKS

The sections below discuss remedial action activities planned for the site concerning metals-contaminated soil.

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5.1 MRBCA TIER 1 RISK ASSESSMENT

An MRBCA Tier 1 Risk Assessment will be conducted to evaluate exposure routes and receptor risks, determine site specific cleanup criteria, and ensure contaminated media is remediated to site specific cleanup levels.

5.2 METALS-CONTAMINATED SOIL REMOVAL ACTIVITIES

At the time this RAP was developed, a remediation contractor had not been chosen for the removal of metals-contaminated soil at the site. Once a remediation contractor is chosen, LOCLG will provide the name of that contractor to the MDNR BVCP Project Manager for this site. Cleanup plans involve excavation and proper disposal of metals-contaminated soil. Removal activities will follow all applicable federal, state, and local regulations.

5.2.1 Removal of Metals-Contaminated Soil

Excavation is planned to remove soil containing lead above its respective MRBCA Tier 1 Risk-Based Target Level (RBTL) for residential land use (260 milligrams per kilogram [mg/kg]) and arsenic above its respective USGS maximum concentration for Miller County, Missouri (7.57 mg/kg) (National Geochemical Survey 2019). Specifically, this area (approximately 1,600 ft²) will be excavated to a depth of 3 feet below ground surface (bgs). Figure 3 in Appendix A shows the approximate area to be excavated. This will be conducted with excavating machinery (such as a skid loader, backhoe, etc.). The cleanup project will also require a land disturbance permit. The excavation contractor will be responsible for implementation and termination of the permit. To ensure that potentially contaminated soil is not distributed off site by wind and rain, best management practices will be implemented. Those practices include, but are not limited to, use of: stockpiling excavated soil, covering soil with plastic, temporary silt fencing, watering, and/or hay bales to slow/control runoff.

Soil Characterization and Disposal

Disposal profile analysis (Toxicity Characteristic Leaching Procedure [TCLP] analysis, etc.) for arsenic and lead will likely be required by the receiving landfill. Based on past sample results from the site, it is anticipated that the soil will be disposed of as special waste and no special handling/disposal will be required. Prior to the start of site cleanup activities, the remediation contractor will obtain a special waste permit from the landfill. During transport, soil in the dump trucks will be covered. Total volume of soil disposed of at the landfill will be documented on weight tickets provided by the landfill. If unexpected subsurface conditions are encountered during the cleanup, alternative sampling and disposal procedures will be discussed with MDNR, and changes will be implemented accordingly.

5.2.2 Confirmation Sampling

Following excavation of metals-contaminated soil, soil samples will be collected from the excavation surface to ensure arsenic and lead in the soil are below their respective cleanup target levels (See Appendix A, Figure 3). The initial area and depth of excavation will be based on previous investigation data. Ten total grab samples will be collected from the excavation surface using a disposable stainless steel spoon. A plastic drop cloth will be place around the sampling point for resting sampling equipment. The samples will be placed in a disposable aluminum pie pan for homogenization, and then transferred to a 4-ounce jar. The sample will be labeled immediately and stored in a cooler at or below 4 degrees Celsius (°C) until being received by the analytical laboratory. Table 4 below summarizes the anticipated surface soil confirmation sampling.

TABLE 5

POST-EXCAVATION CONFIRMATION SOIL SAMPLING OLD SAW SHOP SITE, IBERIA, MISSOURI

Location	Description	Approximate Number of Samples	Analysis
Pit Wall	Grab Soil Sample	8	Arsenic and Lead
Pit Floor	Grab Soil Sample	2	Arsenic and Lead

5.2.3 Surface Soil Cleanup Goals

Results from the post-excavation confirmation sample for lead will be compared to MRBCA Tier 1 RBTL for the lowest (most conservative) established exposure route (Soil Type 1 – Sandy). Postexcavation confirmation sample results for arsenic will be compared to its USGS maximum concentration for Miller County. Discussions with the MDNR BVCP Project Manager may be deemed necessary to establish a more representative cleanup goal for arsenic if the cleanup target level is not achieved. Table 5 below summarizes the cleanup target levels for soil.

TABLE 6

SOIL – CLEANUP TARGET LEVELS OLD SAW SHOP SITE, IBERIA, MISSOURI

Cleanup Target Level	Metals (milligrams per kilogram)

	Arsenic	Lead
MRBCA Tier 1 RBTL - Residential Subsurface Soil	3.89	260
USGS Maximum for Miller County	7.57	41.75

Notes:

MRBCA Tier 1 RBTLs listed are for the lowest (most conservative) established exposure route (Soil Type 1 - Sandy).

MRBCA	Missouri Risk-Based Corrective Action
RBTL	Risk-Based Target Level
USGS	United States Geological Survey

5.2.4 Site Restoration

Site restoration planning is an integral component for this cleanup project. Site restoration will be accomplished after confirmation sampling verifies the site has met the established cleanup goals as discussed in Section 5.1.3. Soil will be brought to the site for restoration purposes and to ensure proper drainage. Soil brought to the site will be consist of clean backfill material.

5.2 QUALITY ASSURANCE/QUALITY CONTROL SAMPLING

To evaluate sample QC, one soil field duplicate will be submitted for laboratory analysis during the project. The soil sample will be analyzed for arsenic and lead. Collection of the soil duplicate is representative of at least 10 percent (%) of the total number of samples collected for that media, which is in accordance with MDNR BVCP requirements.

5.3 LABORATORY METHODS AND SAMPLE HANDLING

Samples collected during the cleanup activities will be submitted to an MDNR-approved laboratory for analysis. Table 6 below summarizes the analytical methods.

TABLE 7

LABORATORY METHODS AND SAMPLE CONTAINER SUMMARY OLD SAW SHOP SITE, IBERIA, MISSOURI

Laboratory Analysis	Analytical Method	Container/Preservative	Holding Time
Arsenic and Lead	SW-846 Method 6010 (metals)	Glass Jar/None	180 days

Standard detection limits and will be adequate for this project. Appropriate containers and physical/chemical preservation techniques will be employed during the field activities to help verify that

representative analytical results are obtained. During the cleanup activities, a 24-hour turnaround time (TAT) for analysis may be requested. The 24-hour TAT may be necessary to ensure project progress is not impeded while awaiting laboratory results.

5.4 DECONTAMINATION AND INVESTIGATIVE WASTES

If necessary, sampling equipment will be cleaned and decontaminated consistently to maintain sample quality. Specifically, non-dedicated equipment that comes in contact with potentially contaminated media will not be reused prior to decontamination, which will consist of a wash with Alconox solution using a stainless steel or nylon brush, followed by a tap water rinse. Field personnel will wear disposable gloves during the decontamination process for personal protection and to prevent cross-contamination.

In general, field activities will be conducted to minimize investigative-derived wastes (IDW) to the extent possible without compromising project objectives. Based on the proposed scope of work, most IDW is expected to consist of disposable sampling supplies (gloves, paper towels, sampling spoons, etc.) that will be disposed of offsite as uncontaminated solid waste. The remediation contractor will be responsible for properly disposing of IDW generated during cleanup activities.

6.0 FIELD DOCUMENTATION

This section discusses field documentation that will be maintained and recorded during project activities.

6.1 PROJECT REMEDIAL ACTION PLAN

A copy of the RAP will be maintained by the remediation contractor at all times. Prior to field mobilization, the remediation contractor will hold a meeting to review field procedures with the project staff.

6.2 FIELD LOGBOOK

The Field Supervisor and other field personnel will document site activities in a field logbook. Field logs will be documented in ink, with any corrections crossed out and initialed. The logbook will document daily field activities in chronological order with regard to the following general procedures:

- Observed site conditions
- Sample collection information
- Problems encountered and sampling plan deviations (if any)

- Photographic descriptions
- Other information related to field procedures.

6.3 PHOTO-DOCUMENTATION

Photographs of the site activities and general field procedures will be taken to further document the remedial efforts. These records will serve to support information entered in the field logbook and visually document the remedial activities. The following information will be recorded in the field logbook in regard to each photograph:

- Time, date, and direction
- Subject description
- Photographer

7.0 QUALITY CONTROL

Cleanup activities will be performed consistent with the QA/QC requirements outlined in this RAP, SSQA, and MDNR BVCP QAPP. EPA Region 7 and Environmental Response Team (ERT) SOPs will serve as additional guidance for certain field and laboratory procedures. Specific quality control measures will include the collection of a field duplicate soil sample, standard chain-of-custody protocols, and standardized field and laboratory methods per this RAP and the SSQA/QAPP.

Sample data will be systematically reviewed and validated consistent with the SSQA and MDNR BVCP QAPP to further document data quality and usability. Data validation will consist of a complete review of field and laboratory methods and associated documentation relative to the approved RAP and MRBCA Technical Guidance. This process will be initiated immediately upon completion of field activities and will be completed prior to development of the final report. At a minimum, the data validation process will address the following:

- Quality objectives and data measurement criteria
- Sampling process design
- Sampling methods
- Sample handling and custody requirements
- Quality control requirements

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8.0 PROJECT SAFETY AND TRAINING

This section discusses project safety and training requirements.

8.1 SPECIAL TRAINING REQUIREMENTS/CERTIFICATION

Field personnel and others directly involved in this project will be required to read and remain familiar with this RAP. It will be the responsibility of the remediation contractor to ensure that all necessary personnel have reviewed and understand the RAP and proposed field activities.

Field staff and the selected abatement contractors will possess the appropriate Occupational Safety and Health Administration (OSHA) training certificates.

8.2 HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan (HASP) will be prepared by the remediation contractor. The HASP will be submitted to the MDNR BVCP Project Manager for review prior to commencing any site activities. Field procedures will be performed consistent with the HASP to promote field safety throughout the duration of the project. Field personnel will be required to read and sign the HASP prior to performing any activities at the site. In addition, daily safety meetings will be performed every morning prior to the start of activities, between oversight contractor and subcontractor staff.

8.3 UTILITY CLEARANCE

The remediation contractor will request marking of underground utility lines by contacting the Missouri One-Call system no less than 72 business hours prior to initiating field activities. Utility clearance documentation will be kept on site throughout the duration of field activities.

Additional safety precautions will address the presence of overhead utilities. Proper management and safety in and around overhead utilities is the responsibility of the excavation contractor.

9.0 **PROJECT REPORTING**

The remediation contractor will complete a draft Remedial Action Completion Report for review by EIERA and LOCLG upon completion of the field, laboratory, and data validation activities. Copies of the Final Remedial Action Completion Report will be distributed in accordance with Section 2.2. The Final Remedial Action Completion Report will include the following:

- General site description and photographic documentation
- Discussion of field and laboratory methods
- General excavation documentation
- Final confirmation soil sampling results, along with maps or drawings of sample locations
- Cleanup target level comparison with sample results
- Complete laboratory data report, including field sheets and chain-of-custody records
- Waste disposal documentation, such as landfill tickets
- Appropriate field sketches or notes that document sampling and clearance testing
- Documentation of deviations from the RAP; significant deviations from the RAP must have BVCP approval prior to implementation
- Remedial action conclusions and recommendations.

10.0 ASSUMPTIONS AND WORK PLAN DEVIATIONS

This RAP assumes that site conditions will allow the proposed site activities to occur in a timely and safe manner. If site conditions will not allow activities to occur safely and as planned, or if site conditions, field observations, or field data suggest that modified strategies are warranted to achieve project goals, minor modifications may be applied at the direction of EIERA/LOCLG and/or the remediation contractor. If modified strategies are applied, these efforts will remain consistent with the QC portions of this document and the approved SSQA/QAPP. Field notes and report discussions will document any modifications to this plan. Alternative methods beyond the specified scope and intent of this RAP will not be applied prior to approval by EIERA and MDNR.

11.0 REFERENCES

- Miller County Geographic Information System (GIS). 2019. Property information concerning 835 Highway 42 Street. Accessed on January 5, 2016. On-line address: http://www.millercountymissouri.org/Assessor.html
- Missouri Department of Natural Resources (MDNR). 2006. Missouri-Risk Based Corrective Action Guidance. June.

Professional Environmental Engineers, Inc. (PE).

- 2018a. Phase I Environmental Site Assessment Update, Old Saw Shop Site. January.
- 2018b. Phase I Environmental Site Assessment Update, Old Saw Shop Site. November.

SCI Engineering. (SCI).

- 2016a. Lead-Based Paint Survey, Old Saw Shop Site. July.
- 2016b. Asbestos Inspection, Old Saw Shop Site. July.
- 2016c. Limited Phase II ESA, Old Saw Shop Site. August.
- 2017. Limited Phase II ESA, Old Saw Shop Site. June.

Seagull Environmental Technologies Inc. (Seagull).

2016. Phase I Environmental Site Assessment, Old Saw Shop Site. January.

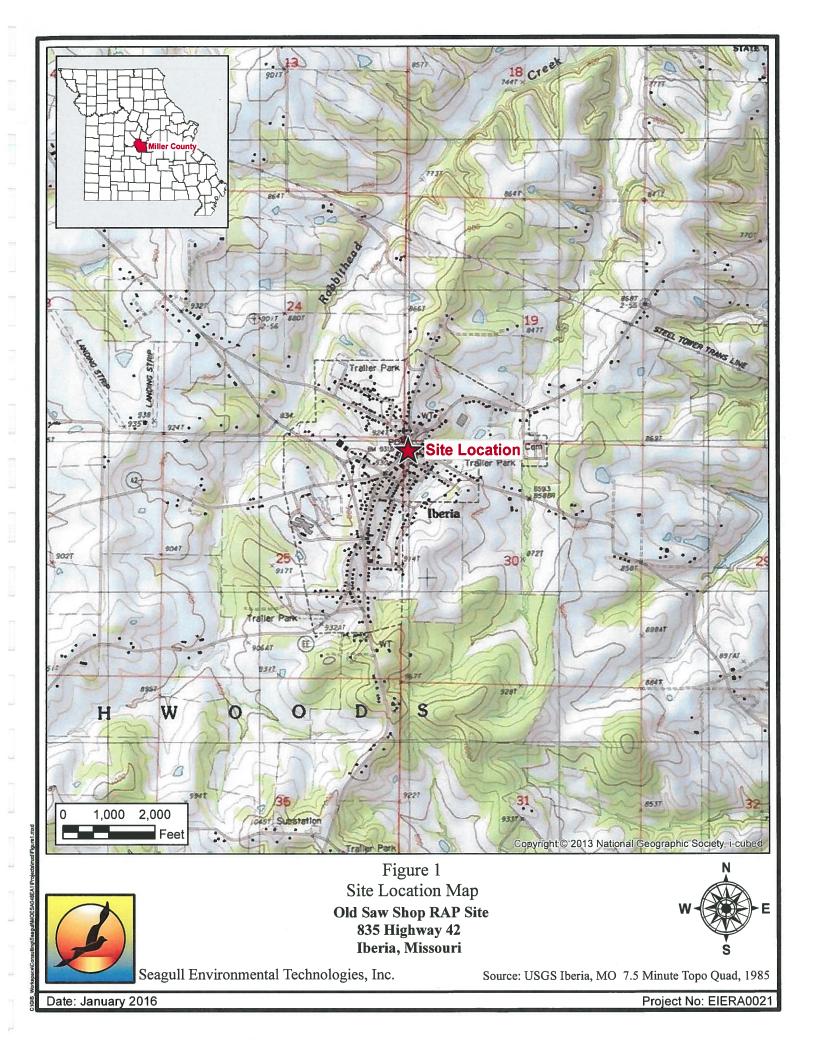
- U.S. Environmental Protection Agency (EPA). 2001. EPA Requirements for Quality Assurance Project Plans. EPA QA/R-5. March.
- U.S. Geological Survey (USGS).
 - 1985. Iberia, Missouri, 7.5-minute Series Topographic Quadrangle Map.
 - 2019. National Geochemical Survey. Average Concentration of Elements in Miller County, Missouri. Accessed on August 12, 2019. On-line Address: https://mrdata.usgs.gov/geochem/county.php?place=f29131&el=As&rf=central

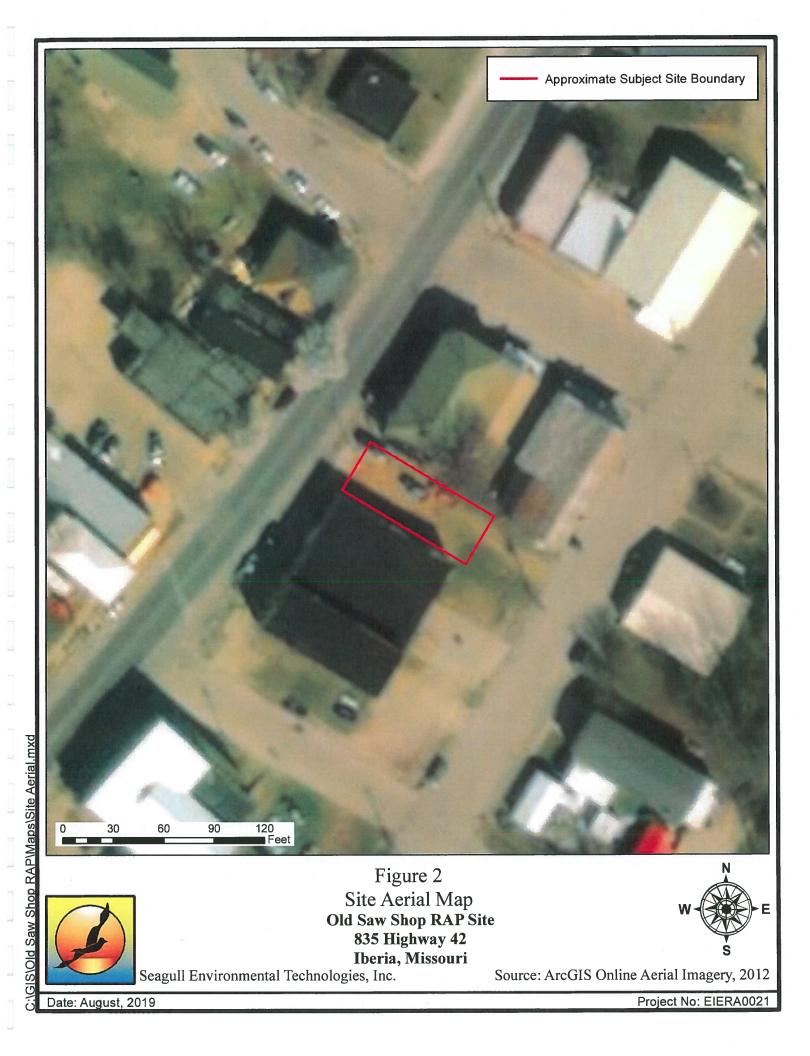
APPENDIX A

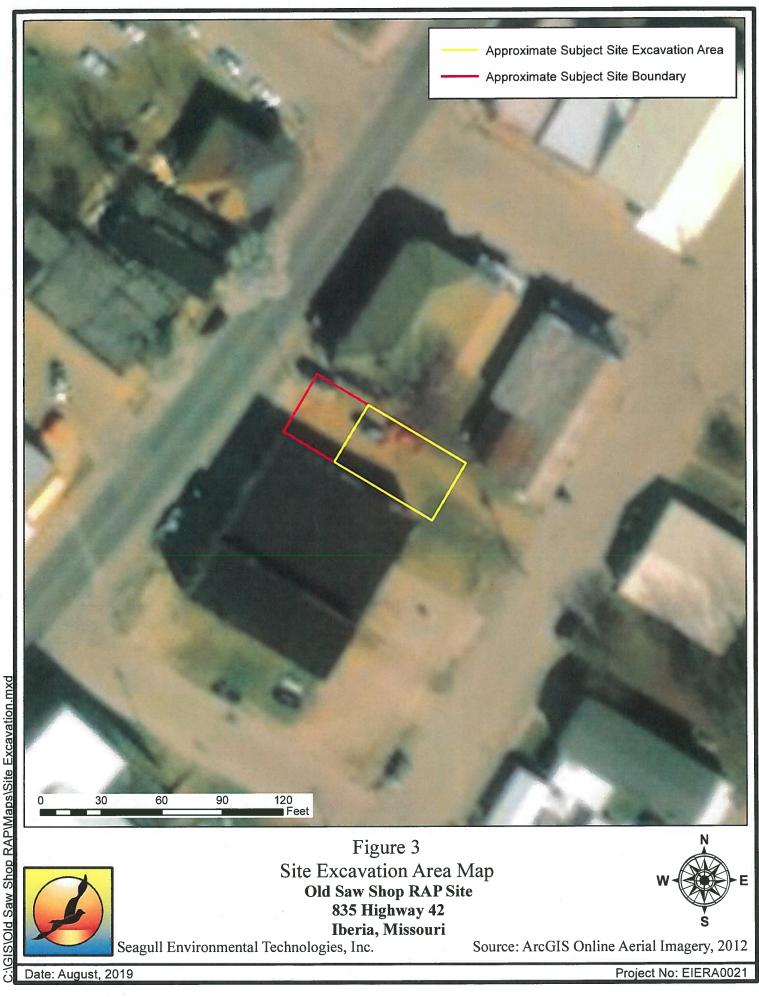
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FIGURES







APPENDIX B

SITE PHOTOGRAPHS



Old Saw Shop Iberia, Missouri Seagull Project No. EIERA0021

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Client: Environmental Improvement and Energy Resources Authority	Description: Photograph of Eads Motors automotive repair s adjacent to the subject property.	hop Photograph Number: <u>1</u>
Direction: South	Photographer: Ryan Lunt	Date: 12/22/2015



Client: Environmental Improvement and Energy Resources Authority	Description: Photograph of an apartment building adjacent to the subject property.	Photograph Number: 2
Direction: Southwest	Photographer: Ryan Lunt	Date: 12/22/2015



Old Saw Shop Iberia, Missouri Seagull Project No. EIERA0021

Client: Environmental Improvement and Energy Resources Authority	Description: Photograph of residential properties north of the subject property.	Photograph Number: 3
Direction: North	Photographer: Ryan Lunt	Date: 12/22/2015
Client: Environmental Improvement and Energy Resources Authority	Description: Photograph of a U.S. Post Office north westof the subject property	Photograph Number: 4
Direction: Northwest	Photographer: Ryan Lunt	Date: 12/22/2015



Old Saw Shop Iberia, Missouri Seagull Project No. EIERA0021

	<image/>	
Client: Environmental Improvement and Energy Resources Authority	Description: Photograph of the southeast portion of the subject property.	Photograph Number: 5
Direction: Northwest	Photographer: Ryan Lunt	Date: 12/22/2015
Client:	Description:	Photograph
		Number:
Direction:	Photographer:	Date:

APPENDIX C

MDNR QAPP FOR BROWNFIELDS/VOLUNTARY CLEANUP PROGRAM SITES



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QUALITY ASSURANCE PROJECT PLAN FOR BROWNFIELDS ASSESSMENTS

Prepared by the Missouri Department of Natural Resources Division of Environmental Quality Hazardous Waste Program Brownfields/Voluntary Cleanup Section

Missouri Department of Natural Resources P.O. Box 176 Jefferson City, MO 65102-0176

PROJECT MANAGEMENT ELEMENTS A.

A.1 TITLE AND APPROVAL SHEET

Brownfield Assessment Quality Assurance Project Plan Missouri Department of Natural Resources **Division of Environmental Quality**

Site Name:

DEPARTMENT APPROVALS

Quality Assurance Manager Director, Hazardous Waste Program (HWP) 4

 $\frac{2|13|19}{Date}$ $\frac{1/2.3/19}{Date}$ 1|23|19

BVCP BA Quality Assurance Project Officer (HWP)

STATEWIDE CONTRACTOR APPROVALS

Director, Statewide Contractor

Project Manager, Statewide Contractor

Project Field Superintendent, Statewide Contractor

QA/QC Manager, Contractor

Date

Date

Date

Date

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A.3 DISTRIBUTION LIST

<u>Missouri Department of Natural Resources (MDNR)</u> Karla Wiseman – Quality Assurance Manager, Division of Environmental Quality (DEQ)

Hazardous Waste Program (HWP)

John D. Jurgensmeyer - Director

Scott Huckstep – Brownfields/Voluntary Cleanup Program (BVCP) Section Chief Brian McCurren – BVCP Unit Chief and Brownfields Assessment (BA) Quality Assurance Project Officer Project Managers – BVCP

<u>Statewide Contractor (contractor)</u> Director Project Manager Project Field Superintendent Contractor/Consultant/Laboratory – Quality Assurance Project Plan Coordinator

A.4 PROJECT/TASK ORGANIZATION

The following list identifies key individuals and organizations participating in this project, and discusses their specific roles and responsibilities as they pertain to this Quality Assurance Project Plan (QAPP).

Brian McCurren - BVCP BA Quality Assurance Project Officer

Responsibilities: Overall management and coordination of site-specific activities as they relate to this QAPP, including correspondence, communication and scheduling. Reviews plans, reports, and data to ensure that site-specific activities conducted pursuant to this QAPP meet project specific Data Quality Objectives (DQO).

Project Managers - BVCP

Responsibilities: Management and coordination of site-specific activities as they relate to this QAPP, including correspondence, communication and scheduling. Reviews plans, reports, and data to ensure that site-specific activities conducted pursuant to this QAPP meet project specific Data Quality Objectives (DQO).

Karla Wiseman - Quality Assurance Manager, DEQ

Responsibilities: Monitors the overall Quality Assurance (QA) operations for the Department. Develops and maintains the Quality Management Plan (QMP). Reviews and approves all QAPPs for the Department.

Project Manager - Contractor

Responsibilities: Supervise and schedule field staff conducting sample collection and site assessment activities. Assures that staff are qualified and trained to perform the work, familiar with the required Standard Operating Procedures (SOP), including those related to Quality Assurance/Quality Control (QA/QC), and have the equipment necessary to perform the work. Reviews reports generated by staff for completeness, clarity and accuracy. Prepares formal reports for Brownfields/Voluntary Cleanup Program (BVCP) staff review and approval.

Project Field Superintendent - Contractor

Responsibilities: Prepare and/or implement site-specific sampling plans to collect environmental samples according to contractor SOPs at potential and/or confirmed hazardous substance sites. Conduct sample collection by appropriate methods to provide data of sufficient quality and quantity to meet the projects' DQOs. Prepare and implement health and safety plans for investigations conducted by the contractor at potential and/or confirmed hazardous substance sites. May prepare formal reports of sampling investigations for BVCP staff to evaluate and include in the Brownfield Assessment reports.

QA/QC Manager - Contractor

Responsibilities: Reviews site-specific QAPPs and other documents as needed to ensure quality data. Performs field audits of contractor staff who conduct sampling activities in order to verify that staff are following the contractor SOPs for environmental data collection. Prepares audit reports summarizing procedures used and makes recommendations for improvement, if necessary.

<u>Contractor/Consultant/Laboratory – Quality Assurance Project Plan Coordinator</u> Responsibilities: Ensures that appropriate analytical methods, Laboratory SOPs, QA/QC procedures, documentation, and training are implemented and routinely followed by all supervisory and technical staff of the contractor. Utilizes data review checklists and QC charts for both precision and accuracy data in the data quality review process. Conducts reviews of data files following review and approval by Laboratory supervisory staff.

Director - Contractor

Responsibilities: Ensures overall validation and final approval of data generated by the contractor. Assists as appropriate in the performance auditing of all activities performed by contractor personnel.

A.5 PROBLEM DEFINITION/BACKGROUND

The Small Business Liability Relief and Brownfields Revitalization Act was signed into law on January 11, 2002. The Act amends several sections of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Title II of the Act amends sections 101, 104, 107 and added Section 128. These amendments provide an updated definition of "brownfield", establish several funding programs for assessment and cleanup of brownfield properties, clarify liability protection for innocent landowners, contiguous property owners, and prospective purchasers of brownfield properties, and establish State Response Programs.

Section 128(a) of the Act authorizes a grant program awarded and administered by the United States Environmental Protection Agency (EPA) to establish and enhance state response programs that address the assessment, cleanup and redevelopment of brownfields sites and other contaminated sites as defined by the law. The Missouri Department of Natural Resources has Memoranda of Agreement with EPA and is automatically eligible for state and tribal funding under Section 128(a).

The Title II amendments clarify that in order to qualify for liability protection under CERCLA, prospective purchasers must perform "all appropriate inquiry" into the history of a property. As

of November 1, 2006, parties must comply with the requirements of the All Appropriate Inquiries Final Rule (40 CFR Part 312), or follow the standards set forth in the ASTM E1527-05 Phase I Environmental Site Assessment Process, to satisfy the statutory requirements for conducting all appropriate inquiries. All appropriate inquiries must be conducted in compliance with either of these standards to obtain protection from potential liability under CERCLA as an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser.

Missouri's state response program, the Brownfields/Voluntary Cleanup Program, is administered by the Department of Natural Resources Hazardous Waste Program's Brownfields/Voluntary Cleanup Section (BVCP). The BVCP provides voluntary parties with technical assistance and oversight for the investigation and cleanup of properties contaminated with hazardous substances. The goals of the BVCP are to clean up contaminated properties and bring them back into productive use.

Grant funding will be used to cover the costs of a variety of activities at or in direct support of brownfields sites, which are defined under CERCLA 101(39) as real properties the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. One of the activities that grant funding will be used for is to perform Brownfield Assessments (BA). The purpose of a BA is to minimize uncertainties surrounding actual or perceived contamination associated with these properties. In order to achieve this goal, the BA must identify whether petroleum products or hazardous substances have been or could be released on or off site, identify contaminated media, and quantify contaminant concentrations. The BA may also identify human or environmental populations that may be at risk from said releases. The BA may encompass one or both of the following activities:

• A Phase I Environmental Site Assessment (Phase I ESA), including a background and historical investigation of the property as well as a preliminary site inspection;

• A Phase II Environmental Site Assessment (Phase II ESA), including on-site sampling activities to identify the types and concentrations of contaminants.

The BVCP will utilize the services of the consultant/contractor to plan for, conduct, and report on environmental assessments of sites selected by the BVCP for BAs. The Missouri Department of Natural Resources operates under its Quality Management Plan (QMP) when collecting or overseeing the collection of environmental sampling data. This plan requires that any subgrantees, contractors, or, in some cases, the regulated community, who generate environmental data develop QAPPs or other appropriate quality management tools to provide a clear, concise, and complete plan for the generation of such data, including the identification of data quality objectives and how they will be met. The QMP covers all intramural and extramural monitoring and measurement activities, including BA activities, which generate and process environmental data for use by the department.

This QAPP is generic in that it applies to several site-specific projects. It is ongoing in that projects are conducted continuously. A site-specific work plan detailing site activities must be submitted to the BVCP Project Officer for approval prior to any work conducted. Any deviations from or supplemental activity to the generic QAPP must be documented in a Site-Specific Quality Assurance Project Plan Addendum (SSQA).

5

A.6 PROJECT/TASK DESCRIPTION

When a site or property has been selected by the BVCP for a BA, the BVCP will select a consultant/contractor based on proposals submitted. The BVCP Project Manager will send a request letter to the selected contractor's Director. The contractor must provide the environmental assessments singly or consecutively as Phase I and/or Phase II ESAs, as specified by BVCP and pursuant to the stated contract specifications. The contractor must conduct environmental assessments which meet or exceed the standards set by the latest edition of ASTM International's "Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessments Process" and "Standard Guide for Environmental Site Assessments and the requirements of the All Appropriate Inquiries Final Rule (40 CFR Part 312), or follow the standards set forth in the ASTM E1527-05 Phase I Environmental Site Assessment Process.

A.6.1 Work Plans

The contractor must submit the written work plan to BVCP at least two (2), but no more than four (4), calendar weeks after BVCP initially requests the plan. The BVCP will evaluate and, if acceptable, approve the written work plan(s) prepared by the contractor for the environmental assessment of the specified property. If the work plan is acceptable, within two calendar weeks of receipt BVCP will provide written authorization to the contractor to proceed with the approved written work plan. BVCP must have the final approval of all individual components of the written work plans revised as specified herein and reserves the right to require modifications, deletions, and or additional elaboration to the written work plans and site assessment reports as BVCP deems necessary.

A.6.1.1 Phase I Environmental Assessment Work Plan

If a Phase I ESA is requested by BVCP, the contractor must conduct a Phase I ESA to evaluate historical sources of information about the property to determine the likelihood that petroleum products or hazardous substances have been released on or near the property. The contractor must conduct a visual inspection of the property, including building interiors, if applicable. To the extent possible through non-sampling means, the contractor must identify the information listed below as part of each Phase I ESA.

- A.6.1.1.a Property site location
- A.6.1.1.b Property site features/current property site condition and use
- A.6.1.1.c History of ownership (title search)
- A.6.1.1.d History of operations (city business directories, etc)
- A.6.1.1.e Past and present on-site activities (manufacturing processes, types, compositions, and volumes of waste streams)
- A.6.1.1.f SARA Title III data
- A.6.1.1.g Toxic release inventory data
- A.6.1.1.h State and federal permit history
- A.6.1.1.i Storage facilities, including underground storage tanks
- A.6.1.1.j Dumps or landfills
- A.6.1.1.k Spills or incidents reported
- A.6.1.1.1 Cleanups
- A.6.1.1.m Enforcement actions
- A.6.1.1.n Proximity to human and environmental populations
- A.6.1.1.0 Off-site contamination and off-site contamination potential

- A.6.1.1.p Limited visual lead-based paint and asbestos inspection
- A.6.1.1.q Proximity to public and/or private groundwater wells and other environmentally sensitive receptors

A.6.1.2 Phase II Environmental Assessment Work Plan

If a Phase II ESA is requested by BVCP, the contractor must conduct a Phase II ESA to further evaluate the property and to sample the potential sources of contamination identified in the Phase I ESA. The work plan must include a sampling and analysis plan, a field sampling plan, a health and safety plan, a signature page, and reference to this generic QAPP. A SSQA should also be included, if applicable. The work plan must provide general site information, describe the number, type, and location of samples to be collected (included on a site sketch) as well as analytical parameters and methods for each sample.

The work plan prepared by the contractor must include a brief description of all potential environmental concerns, including contamination by hazardous substances, accompanied by a site sketch that illustrates: proposed sampling locations, contaminant sources, migration pathways (e.g., wind, groundwater, sediments, surface water), exposure routes (e.g., ingestion, inhalation, direct contact), and human and ecological receptors.

In conducting a Phase II ESA, the contractor may measure groundwater flow direction. The contractor should sample any of, but not limited to, the following materials, potential sources, environmental media, and receptor populations:

- A.6.1.2.a Hazardous substances stored on site (including above and below ground tanks and conduits)
- A.6.1.2.b Buried drums and other containers
- A.6.1.2.c Debris and building materials
- A.6.1.2.d Spilled materials and residues
- A.6.1.2.e Soils and sediments
- A.6.1.2.f Surface waters
- A.6.1.2.g Groundwater
- A.6.1.2.h Soil gas
- A.6.1.2.i Building and equipment surfaces (wipe samples)

A.6.1.3 Modifications to the Work Plan

Modifications to the written work plan will be permitted under the following conditions: A.6.1.3.a BVCP requested changes

If BVCP determines that modifications to the written work plan are necessary or desired, BVCP will document the requested changes to the contractor in writing, including any new instructions for the environmental assessment. Such changes may include additional sampling at the site, changes to the required completion date, or any other change to the original information and instructions. Based on the written instructions provided by BVCP, the contractor must revise the written work plan according to the requirements for the written work plan. The contractor must submit the requested changes to BVCP within 2 weeks, or the timeframe outlined in the written instructions.

A.6.1.3.b Contractor requested changes

If, after implementation of services, the contractor determines that modifications to the written work plan are necessary, including a request for an extension to the required date of completion, the contractor must submit a written request for such changes to BVCP. The written request must include the reason for the modification and must detail the contractor's proposed changes to the written work plan. BVCP must review the contractor's written request and send written notice of approval or disapproval of the request to the contractor within 5 calendar days of receipt of the contractor's written request. Contractors may not implement changes in the work plan without prior, written approval from BVCP. Any changes which would affect the cost must be approved by the BVCP Planner or Section Chief.

A.6.1.3.c Field Deviations from the Work Plan

Changes in site conditions between the time of the site reconnaissance and the on-site sampling visit as well as subsurface conditions found at the time of sampling may cause the number of samples actually collected to vary from the number proposed in the work plan. Such deviations or changes to the work plan while in the field must be made and approved by the BVCP Project Officer who approved the work plan. Any changes which would affect the cost must be approved by the BVCP Planner or Section Chief. The deviations or changes must be documented in the final report prepared by the contractor and submitted to the BVCP.

A.6.1.4 Specific Requirements of Work Plan Execution

A.6.1.4.a Initiation of Assessment Work

If the contractor receives written notification to proceed from BVCP, the contractor must perform an environmental assessment in accordance with the approved written work plan. The contractor must begin each environmental assessment no later than 10 calendar days after receipt of written notification to proceed from the BVCP. However, in the event that both a Phase I and a Phase II ESA are required for a property, one of the following will apply, as specified by BVCP at the time of the initial notification to proceed:

• The contractor must not proceed with the Phase II environmental assessment, until (1) the Phase I ESA has been completed by the contractor and approved by BVCP, and (2) the contractor has received the BVCP's written notice to proceed with the Phase II ESA; or

• When BVCP determines that its purposes would be best addressed through expedited environmental assessments, BVCP will direct the contractor to proceed with both the Phase I and Phase II ESAs, without waiting for a notice to proceed with the Phase II.

A.6.1.4.b Contractor and BVCP Responsibilities

The contractor must provide all services for the completion of environmental assessments, as appropriate for the site and approved by BVCP, including, but not limited to, records and title searches, site reconnaissance, interviews, subsurface exploration, sample collection, and chemical testing, and must submit to BVCP any statement of outstanding issues regarding the specific environmental assessment, as well as the written report of the results as required herein.

The contractor must ensure and provide for the protection of the personal safety and health of all of its on-site workers, including any required medical monitoring and the selection, provision, testing, decontamination, and disposal of all Personal Protective Equipment (PPE). The contractor must comply with all applicable worker safety and health laws and regulations. At all times during performance of services, the contractor must exercise reasonable professional judgement regarding safety and must use professional judgement to make decisions regarding cessation of services for safety reasons.

The BVCP Project Officer will coordinate public contacts. The contractor must coordinate field activity scheduling, utility clearance and site access. **A.6.1.4.c** Sampling

Generally, the scope of each Phase II ESA sampling event will include multiple soil borings, and certain soil borings will be converted to temporary wells for the collection and analysis of groundwater, if present, and determination of the direction of groundwater flow.

The contractor should identify the need to perform limited excavation at sites to obtain samples of buried material or to document other subsurface conditions. The contractor must manage the procurement, selection, and oversight of contractual services for excavation work.

When sampling is conducted, contractor personnel must collect the samples according to applicable Standard Operating Procedures (SOP) for sampling, which must be specified in the site-specific work plan and/or SSQA.

Samples collected for projects under this QAPP should be submitted to the contractor's laboratory for analysis. The contractor must conduct sample analysis using standard EPA testing methods. The analytical parameters will vary by project. On-site field screening analyses may be conducted by the contractor when a variety of unknown materials or media are present on-site, or when field screening analyses could result in significant economies in laboratory analytical work.

A.6.1.5 Reporting

The contractor must prepare and submit a full-color, complete written report of the results of the Phase I and/or Phase II ESA to BVCP. The contractor must complete each environmental assessment in accordance with the approved project schedule. The environmental assessment will not be considered complete until the written report is submitted to and received by BVCP. The written report must, at a minimum, contain the following information and results of the environmental assessment:

- A.6.1.5.a Property(s) assessed
- **A.6.1.5.b** Maps and photographs of site(s)
- A.6.1.5.c Site History (current and past owners and operators and property use)
- A.6.1.5.d Overview of investigation
- A.6.1.5.e General Site Features (including topography and hydrogeology)

- A.6.1.5.f Hazardous substances and hazardous wastes present (descriptions, contaminants, quantities, locations)
- A.6.1.5.g Receptor populations, both human and environmental (descriptions, numbers, locations)
- A.6.1.5.h Soil investigations
- A.6.1.5.i Surface water investigations
- A.6.1.5.j Groundwater investigations
- A.6.1.5.k Air investigations
- A.6.1.5.1 Sampling methods, field logs, chain of custody, analytical data, and QA/QC documentation for field and laboratory (if Phase II environmental assessment was performed)
- A.6.1.5.m Map depicting sample locations (drawn to scale) and contaminant concentrations at each location
- A.6.1.5.n Sampling data summary table including appropriate target levels for comparison
- A.6.1.5.0 Other information as may be requested by BVCP
- A.6.1.5.p Identity and quantity of investigation derived wastes as well as documentation of the disposal of any waste or hazardous substances generated during the assessment.
- A.6.1.5.q Summary and Conclusions. May include recommendations for proper handling of the various contaminants, materials, and conditions discovered that represent an imminent threat or hazard.

A.7 DATA QUALITY OBJECTIVES AND CRITERIA

Data Quality Objectives (DQOs) are qualitative and quantitative statements derived from the Systematic Planning and DQO processes developed by EPA and further described in *Guidance for the Data Quality Objectives Process* (U.S. EPA, 2006), *Data Quality Objectives Process for Hazardous Waste Investigations* (U.S. EPA, 2006a), and *Guidance on Systematic Planning Using the Data Quality Objectives Process* (U.S. EPA, 2006b). Data quality indicators as discussed in Section B.5 must be used to ensure quality data for sampling conducted pursuant to this QAPP.

A.7.1 Problem Statement

Current and historical uses of many properties in Missouri include a variety of industrial and commercial uses that may have resulted in the presence of hazardous substances or petroleum products on the property. The presence of these contaminants may hinder redevelopment or sale of the property. Before redevelopment or sale can take place, more information is needed regarding potential environmental impacts from previous operations.

A.7.2 Decision Statement

The decision to be made is to determine if soil, surface water, groundwater, and/or structures on the property have been impacted by hazardous contaminants. If they have been impacted, BVCP will need to determine what actions may be needed to facilitate safe redevelopment.

A.7.3 Inputs into the Decision

The inputs into the decision will be any reports, as required in Section A.6.1.5, of Phase I and Phase II ESA activities, as discussed in Sections A.6.1.1 and A.6.1.2. Results of sampling

conducted as part of a Phase II ESA should be compared to Missouri Risk-based Corrective Action (MRBCA) target levels.

A.7.4 Study Boundaries

The study boundary is the legal property boundary of the site that has been selected by BVCP for a BA.

A.7.5 Decision Rules

• If the Phase I ESA finds no Recognized Environmental Conditions (RECs) and there is no indication of the presence of asbestos-containing material (ACM) or lead-based paint (LBP), then no further action will be recommended.

• If the Phase I ESA finds no RECs but ACM or LBP is discovered or suspected, a Phase II ESA will be recommended.

• If the Phase I ESA finds one or more RECs but no ACM or LBP is discovered or suspected, a Phase II ESA will be recommended.

• If the Phase I ESA finds one or more RECS and ACM or LBP is discovered or suspected, a Phase II ESA will be recommended.

• If the Phase II ESA finds no contaminants at concentrations above the MRBCA Default Target Levels (DTLs) and no ACM or LBP, then no further action will be recommended.

• If the Phase II ESA finds no contaminants at concentrations above the DTLs but the presence of ACM or LBP is confirmed, further investigation, risk assessment, and possibly remediation will be recommended.

• If the Phase II ESA finds contaminants at concentrations above the DTLs but no ACM or LBP, further investigation, risk assessment, and possibly remediation will be recommended.

• If the Phase II ESA finds contaminants at concentrations above the DTLs and the presence of ACM or LBP is confirmed, further investigation, risk assessment, and possibly remediation will be recommended.

A.7.6 Limits on Decision Error

Due to the limited nature of Phase II ESA sampling, a judgmental sampling approach should be used. RECs must be identified in the Phase I, and decision error will be limited by using judgmental sampling to target the worst-case contaminant locations by sampling RECs where the largest contaminant release would have occurred. When contaminants are detected, decision error will also be limited by comparing contaminant concentrations to the conservatively-derived target levels in the MRBCA guidance.

A.7.7 Design Optimization

In BVCP, the contractor who performs a particular BA is selected by a bid process. Design of the BA is optimized because BVCP has up to four bids to select from, and the bid selected is the one with the lowest cost that also meets minimum sampling requirements.

A.8 SPECIAL TRAINING/CERTIFICATION

Sample collectors are required to successfully complete a 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) site safety course in accordance with 40 CFR Part 311, which references 29 CFR 1910.120. Staff are also expected to be trained on sampling for hazardous materials as well as read and be familiar with applicable SOPs, the generic QAPP, the site-specific work plan and the SSQA prior to performing actual sample collection. Some sample collectors may need to be licensed inspectors for ACM or LBP. Specific training requirements may be necessary for personnel operating field analytical or sampling equipment or specialized equipment, such as an X-ray Fluorescence (XRF) analyzer or geophysical instruments. Manufacturer's requirements and recommendations shall be followed.

The contractor must ensure and provide for the protection of the personal safety and health of all its workers on site, including any required medical monitoring and the selection, provision, testing, decontamination, and disposal of all Personal Protective Equipment (PPE). The contractor must comply with all applicable worker safety and health laws and regulations. At all times during performance of services, the contractor must exercise reasonable professional judgement regarding safety and must use professional judgement to make decisions regarding the cessation of services for safety reasons.

A.9 DOCUMENTS AND RECORDS

Work plans and final reports must be generated and submitted to BVCP for review and approval.

Field QA/QC documentation for site characterization reports and/or remedial action/risk management reports shall be developed in consideration of the following details:

- Calibration and maintenance records for field instrumentation
- Documentation of sample collection procedures
- Reporting of any variances made in the field to sampling plans, SOPs or other applicable guidance documents
- Reporting of all field analysis results
- Documentation of sample custody (provide copies of completed chain-of-custody documents)
- Documentation of sample preservation, handling and transportation procedures
- Documentation of field decontamination procedures (and if applicable, collection and analysis of equipment rinsate blanks)
- Collection and analysis of all required duplicate, replicate, background and trip blank samples, and
- Documentation of disposal of investigation-derived wastes.

Laboratory QA/QC documentation for site characterization reports and/or remedial action/risk management reports shall be developed in consideration of the following details:

• If the published analytical method used specifies QA/QC requirements within the method, those requirements must be met and the QA/QC data reported with the sample results;

• At a minimum, QA/QC samples must consist of the following (where applicable): method/instrument blank, extraction/digestion blank, initial calibration information, initial calibration verification, continuing calibration verification, laboratory fortified blanks/laboratory control samples, duplicate, and matrix spikes/matrix spike duplicates. The site characterization and/or remedial action/risk management reports must include a discussion of data quality.

• Documentation of appropriate instrument performance data such as internal standards and surrogate recovery.

B: DATA GENERATION AND ACQUISITION

B.1 SAMPLING PROCESS DESIGN

The types of information inputs required to design the Phase II ESA work plan may be gathered from numerous sources, including: Phase I ESA, site reconnaissance, interviews of site owners or operators, published reference books and other resources, databases, and internet resources.

The goal of each BA is to identify areas of contamination in surface and subsurface soil, groundwater, and buildings, not necessarily to fully delineate the extent of contamination or to locate all contaminant sources. BA projects primarily are limited screening investigations, the results of which will be used by the BA recipient to evaluate potential future use and/or development of the property. The projects usually have very limited budgets and involve a limited number of samples, both of which may preclude implementing a statistical sampling design. Based on these factors, the sampling designs for BAs will primarily use the judgmental sampling technique. When developing a plan for a judgmental sampling design, the following site information should be considered: potential contaminant(s) and locations based on past property uses, soil properties that affect contaminant migration, physical and chemical nature of potential contaminant(s), the manner in which contaminant(s) may have been released, and the timing, duration and amount of potential release(s). The sampling process design must be described in detail in the site-specific work plan and/or SSQA.

All QC samples must be collected in accordance with EPA guidance and described in the sitespecific work plan. All QC samples must be documented in the sampling report. See Section B.5 for more information on QC samples.

B.2 SAMPLING METHODS

The field investigations and sample collection activities under the project should adhere to applicable SOPs and available EPA and MDNR guidance and must be described in the site-specific work plan and/or SSQA.

For specific field analytical equipment, geophysical equipment, surveying instruments, etc., for which no SOPs or EPA guidance exist, manufacturer's specifications and operational instructions, other agency SOPs, other methods and instructions, including professional or scientific technical standards, may also be used upon approval of the BVCP Project Officer. The site-specific work plan must specify sampling methodologies and procedures used.

B.3 SAMPLE HANDLING AND CUSTODY

Sample handling and custody must be accomplished according to SOPs and using standard forms developed by contractor's laboratories. Sample container selection must be according to appropriate method guidance and/or SOPs. The site-specific work plan must specify sample handling procedures, sample containers, preservation methods, holding times, chain-of-custody and field documentation, handling of samples in the field, and transport of samples to the laboratory. All laboratory analyses must be conducted within the holding time specified for the analytical method used. Any data obtained from analyses conducted on samples after the

specified holding time limit must be qualified by the laboratory in sample result documentation and discussed in the sampling report.

B.4 ANALYTICAL METHODS

Field analytical measurements must be according to SOPs and manufacturer's operational instructions, such as immunoassay kit instructions, photoionization detector (PID) instructions, XRF manual, etc. Calibration and other QA/QC actions must be accomplished according to SOPs, manufacturer's minimum recommendations/ requirements, and other appropriate scientific and technical standards. Appropriate EPA guidance, SOPs, best professional judgement, and accepted industry and scientific practices should be used when correlating field analytical data to laboratory data.

Laboratory measurements must be performed by the selected laboratory according to the method requested, and generally shall be in accordance with EPA Solid Waste Methods (SW)-846-specified container, preparation and analytical methods. The QC procedures specified in these methods must be followed.

The detection limits of the selected analytical methods shall be equal to or less than the concentrations of interest needed for BAs. Analytical parameters will vary by project; therefore, the analytical methods used for the parameters of concern must be specified in the site-specific work plan and/or SSQA.

Analytical results obtained for projects conducted under this QAPP should be compared to specific risk-based target levels in the department's MRBCA Guidance. Ideally, the laboratory reporting limits would be at or below the MRBCA media and pathway-specific risk-based target levels. However, these risk-based values do not take into account analytical feasibility; even using the best available measurement technology, laboratory-reporting limits will exceed the MRBCA benchmarks for some analytes in some environmental media. There may be special circumstances where a higher level of sensitivity for some analytes will be required. Data that do not meet the laboratory reporting limits must be qualified as described in the applicable verification/validation procedure, and documented in the project report.

Any non-standard analytical methods, along with associated validation procedures, must be specified in the site-specific work plan and/or SSQA, and need prior approval by the BVCP. An explanation as to why non-standard methods are being proposed must also be included in the site-specific work plan and/or SSQA.

All QC documentation must be provided with each analytical deliverable package. The contractor will be responsible for ensuring all analytical data provided by the contractor's laboratory for the project meets the contract requirements and the requirements of this QAPP. If the analytical data do not meet contract requirements, the issue should be handled as described in Section D.3 Reconciliation with User Requirements.

B.5 QUALITY CONTROL

B.5.1 Principal Quality Attributes

A number of field and laboratory QC checks will be required to ensure data meet the project DQOs. The principal quality attributes important to site assessment projects are precision, accuracy, comparability, representativeness, and completeness. Criteria for these attributes are discussed below.

1. Data Precision

Data Precision is a measure of the reproducibility of analytical results and is typically expressed in terms of the standard deviation among a set of data or as the relative percent difference (RPD) between two measurements. Overall precision should be measured using the RPD between duplicate or replicate split samples.

$$RPD = 100 \left[\frac{x_1 - x_2}{\overline{x}} \right]$$

• The criterion for RPD between primary and duplicate aqueous samples for each contaminant measured above the laboratory reporting level is $\leq 30\%$.

• The criterion for RPD between primary and replicate split non-aqueous samples and for duplicate non-aqueous VOC samples is \leq 50%.

• The criterion for RPD between primary and duplicate air samples is be $\leq 25\%$.

If data fall within these limits, then the overall precision of the sampling and analytical process is adequate to meet the project DQOs. Data that do not meet these precision criteria must be qualified as described in the applicable validation procedure (Section D), and discussed in the project report.

2. Laboratory Precision

Precision of laboratory analyses is assessed by the analysis of Matrix Spike/Spike Duplicates (MS/MSD), laboratory duplicate samples, and blind performance evaluation samples. The frequency with which laboratory precision is assessed and the performance criteria vary by analyte, analytical method, and environmental media. The criteria and methods for assessment of laboratory precision are specified in the analytical methods.

3. Accuracy

Accuracy is a measure of the bias that exists in a measurement system. The accuracy of laboratory analyses will be assessed by analysis of preparation/method blanks, laboratory control samples, surrogates, internal standards, matrix spikes, and blind performance samples. The frequency with which laboratory accuracy is assessed and the performance criteria vary by analyte, analytical method, and environmental media. Criteria for laboratory accuracy are specified in the analytical methods.

Field accuracy will be assessed through the analysis of trip blanks and field equipment rinse blanks. Contaminants should not be detected above the laboratory reporting level in trip blanks and equipment rinse blanks. Any data that do not meet these accuracy criteria must be qualified as described in the applicable validation procedure. The BVCP Project Manager and applicant's contractor will evaluate all qualified data on a project-specific basis, and determine how/whether to use the data.

4. Data Comparability

Comparability is the degree of confidence with which one data set can be compared to another. The objective of comparability for this QAPP is to ensure that sampling data developed during the project investigation may be readily compared to each other and to the appropriate screening benchmarks. All data should be reported as degrees Celsius (flash point); pH units; $\mu g/l$ or mg/l for water, liquids or Toxicity Characteristic Leachate Procedure (TCLP); $\mu g/kg$ or mg/kg for soil, sediment or other solids; $\mu g/m3$ for air; mg/cm² or % by weight for LBP; and % by weight for ACM. Comparability is further addressed by using appropriate field and laboratory methods that are consistent with current standards of practice as approved by EPA.

5. Data Representativeness

Representativeness is the degree to which sampling data accurately and precisely depicts selected characteristics such as parameter variations at a sampling point or an environmental condition and is ensured for projects under this QAPP in several specific ways that are further discussed in other sections of this QAPP:

a. Use of correct sampling procedures and equipment

b. Adherence to QA and QC requirements for ensuring sample integrity

c. Collection of an adequate amount of sampled material

d. Selection and implementation of an appropriate analytical measurement method, including sample preparation.

6. Data Completeness

Completeness is the measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under "normal" conditions and is expressed as a percentage of the amount of valid data obtained compared to the amount that was planned. One hundred percent of data completeness is desired for the collection of field samples for all project investigations. f less than 100 percent is received, the BVCP Project Manager will decide if the valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions is sufficient to meet the project DQOs. If not, additional sampling may be required.

B.5.2. QC Samples

QC samples are required to verify the validity of analytical results and to assess whether the samples were contaminated from sources not directly attributable to releases at the site (such as improper decontamination, cross-contamination, laboratory contamination, etc.). The field QC samples proposed for collection must be specified in the site-specific work plan, and shall include the following, as appropriate.

- Trip blanks to determine if samples were contaminated during transport.
- Field blanks to determine if contaminants were introduced into samples by sample containers, preservatives, sampling procedures, etc.
- Rinsate samples to verify adequate decontamination of sampling equipment.

• Replicate samples (split samples) are obtained by dividing or splitting one sample that has been mixed or homogenized into two samples for separate analysis. Replicate samples primarily assess precision associated with analytical procedures, and to a lesser extent, sample handling procedures. Replicate split samples of soils or other non-aqueous materials are not recommended if volatile organics analyses are requested due to the potential loss of the volatiles during the mixing process. If soil samples will be analyzed for volatile organic compounds (VOCs), duplicate samples should be collected prior to mixing. However, note that there may be a greater potential for inconsistency due to the heterogeneous nature of soils or other non-aqueous media

• Duplicate water samples to assess precision associated with sampling methodology, and to a lesser extent sample heterogeneity and analytical procedures.

• Duplicate soil samples to determine the variability or heterogeneity of the sampled media.

For all projects involving the collection of aqueous samples, a trip blank must be included at a frequency of one per cooler if the proposed analysis includes VOCs or semi-volatile organic compounds (SVOCs). An equipment rinsate blank should be collected for projects where the sampling equipment is decontaminated in the field for reuse. Equipment rinsate blanks should be collected at a frequency of one per field sampling event (mobilization) for each different combination of sampling equipment, decontamination method, and analytical parameter. Aqueous samples, air samples, and non-aqueous samples for VOC analysis should be collected as duplicates. Other non-aqueous samples should be collected as replicate splits. Duplicate or replicate split samples for each media (groundwater, surface water, soil/sediment, air, ACM, LBP) should be collected at a frequency of 10% of the total number of samples (for all events with <10 samples, at least one duplicate or replicate is required).

Contaminants should not be detected above the laboratory reporting level in trip blanks, field blanks, and equipment rinse blanks. Any data that do not meet these accuracy criteria must be qualified on sample results. The BVCP Project Manager and contractor personnel will evaluate all qualified data on a project-specific basis, and determine how/whether to use the data.

All QC samples must be documented in the sampling report.

Laboratory QC samples include duplicates, spikes, laboratory blanks, and performance evaluation samples, and are performed by the fixed laboratory according to the approved laboratory QA/QC plans.

B.6 INSTRUMENT/EQUIPMENT TESTING, INSPECTION AND MAINTENANCE

Field analytical instruments used during this project must be maintained and calibrated according to instructions provided by the instrument manufacturer, and other appropriate scientific and technical guidance and standards pertinent to the specific instrument in use. The contractor will be responsible for performing operational checks on all field equipment prior to use in the field. An operational problem with any field instrumentation must be noted by the contractor in the field notebook. Daily or regular calibration of field instrumentation must be according to applicable SOPs and manufacturer's instructions and indicated or referenced in the site-specific work plan.

Fixed laboratory equipment used by contract laboratories for quantitative sample analysis must be tested, inspected, calibrated and maintained according to the specific analytical equipment requirements as stated in the SOPs of the laboratory, in accordance with manufacturerspecified procedures or method-specified procedures, as appropriate.

B.7 INSTRUMENT/EQUIPMENT CALIBRATION AND FREQUENCY

Maintenance and calibration procedures must be conducted by the contractor and laboratory in accordance with manufacturers' instrument manuals, method-specified procedures and the laboratory SOPs, as appropriate.

B.8 INSPECTION/ACCEPTANCE OF SUPPLIES AND CONSUMABLES

Inspection and acceptance of supplies and consumables must be conducted by the contractor according to laboratory SOPs. Any supplies and consumables used in the sample collection or instrument calibration processes, such as sample bottles, bailers, dedicated tubing, deionized water, calibration gases, etc., must be inspected upon receipt and prior to use.

B.9 NON-DIRECT MEASUREMENTS

Non-direct measurement data is the basis for Phase I and II ESAs and is accepted by industry and EPA in accordance with ASTM Standards. Several types of data and information may be obtained from non-measurement sources for use in projects conducted under this QAPP. The primary types and sources of non-measurement data are listed in Section B.1 Sampling Process Design, first paragraph. These data may be used to design sampling plans and may be used with the directly measured data collected during each project to evaluate the need for further site characterization, risk assessment, remediation, and/or suitability for development. Nondirect measurement data must be documented and referenced in any document for which they are used.

B.10 DATA MANAGEMENT

Data management, including chain-of-custody review and correction; data review; reduction and transfer to data management systems; quality control charts; quality control procedures; and sample receipt, storage and disposal, must be conducted by the contractor and laboratory in accordance with applicable SOPs and accepted industry practices.

Data management documentation must be in accordance with applicable SOPs and accepted industry practices, and must include sampling reports, copies of completed chain-of-custody forms, and field notes or other supporting documentation with the analytical results. Data reduction should occur in accordance with contractor analytical SOPs for each parameter. If difficulties are encountered during sample collection or sample analyses, a brief description of the problem must be provided in the sampling report prepared by the contractor. Data reporting must be in accordance with applicable SOPs and must include, at a minimum:

• Sample documentation (location, date and time of collection, collection method, and analysis, etc.)

Chain-of-custody forms

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- Initial and continuing calibration
- Determination and documentation of detection limits
- Analyte(s) identification
- Analyte(s) quantitation
- Quality Control sample results

Adequate precautions must be taken during the reduction, manipulation, and storage of data in order to prevent the introduction of errors or the loss or misinterpretation of data.

C: ASSESSMENT AND OVERSIGHT

C.1 ASSESSMENTS AND RESPONSE ACTIONS

This section describes the internal and external checks necessary to ensure that all elements of the QAPP are correctly implemented as prescribed, that the quality of the data generated by implementation of the QAPP is adequate, and that any necessary corrective actions are implemented in a timely manner.

C.1.1 Laboratory Performance Assessment

Laboratories must comply with all of the EPA and the National Environmental Laboratory Accreditation Conference (NELAC) requirements for laboratory QA programs. Data resulting from participation in the NELAC program shall be reviewed by the laboratory Quality Assurance Manager and any problems shall be documented and addressed.

C.1.2 Field Performance Assessment

The auditor in charge of field QA must conduct audits of field activities according to contractor QA field auditing procedures. The process of choosing when field audits are conducted is not based on a particular project or site-sampling event, but rather on assuring that each person involved in sample collection is audited at least once per year. The contractor's field QA auditor is responsible for initiating and implementing response actions associated with findings identified during the field audit.

C.1.3 Overall Quality Assessment

EPA Region VII conducts periodic QA Audits of Missouri's environmental programs. These audits normally include some type of review of the program's quality system, and may include review of QAPPs.

C.1.4 Data Validation

All field and laboratory data will be subject to validation to review for accuracy, precision, completeness, representativeness, and comparability, and is discussed in more detail in Section D. The acceptance criteria for measurement data are discussed in Section B.5.

C.1.5 Overall Project Performance Assessment

If deficiencies or areas that need improvement are found with the overall performance of the tasks described herein, the BVCP BA Quality Assurance Project Officer will evaluate and report on the overall performance, and provide the evaluation to the BVCP Section Chief. The

Section Chief will communicate deficiencies and areas that need improvement to the contractor's Director.

Specifically, the following items must be evaluated to determine how well the performance of tasks met the specification of this QAPP and the goals of the BVCP's BA program: data quality; data completeness; report completeness; usability and clarity of report narrative, figures and maps; and timeliness of report completion.

C.2 REPORTS TO MANAGEMENT

Data from the contractor's laboratory should be submitted to the BVCP Project Officer as an appendix to the final report using the laboratory analytical report sheets. The report sheets must include documentation of the sampling location, sample description, date of collection, collector, analysis performed and results, date of analysis, and analytical method used. A copy of the chain-of-custody and the lab results must also be attached to the final report. In addition, an explanation of any deficiencies in data quality must be provided with the sampling report.

Field performance assessment audits must be documented by the contractor's field QA auditor in a written report that must be kept on file at the contractor's office. Results from the laboratory's audit studies must be kept on file at the contractor's office.

Comments and recommendations from the EPA Region VII periodic QA audits of state environmental programs are provided to the Department QA manager and used by Department management and staff to take any corrective actions which may be needed.

D: DATA VALIDATION AND USABILITY

D.1 DATA REVIEW, VERIFICATION AND VALIDATION

To ensure that measurement data generated when performing BAs are of an appropriate quality, all data must be validated. Data validation is a systematic procedure for reviewing a body of data against a set of established criteria to provide a specified level of assurance of its validity prior to its intended use. The techniques used must be applied to the body of the data in a systematic and uniform manner. The process of data validation must be objective and independent of the data production process. All data, as applicable, from BAs must be validated in accordance with EPA guidance on *Environmental Data Verification and Data Validation, Data Quality Assessment: A Reviewers Guide* and *Data Quality Assessment: Statistical Methods.* Any deviations must be documented and provided with the analytical data report.

D.2 VERIFICATION AND VALIDATION METHODS

D.2.1 Documentation, Data Reduction and Reporting

Documentation must include the sampling reports, copy of the completed chain-of-custody, and field notes or other supporting documentation with the analytical results. Data reduction must occur in accordance with the laboratory's analytical SOPs for each parameter, consistent with EPA or other established methods. If difficulties are encountered during sample analyses, a brief description of the problem must be provided.

Data derived from sampling events undertaken for this project must be reported to the BVCP Project Officer as discussed in Section C.2. Reports to Management.

D.2.2 Data Validation

Data validation must occur as described in the analytical SOPs for each parameter and the laboratory SOPs for data review. Data validation is accomplished using control charts and data review checklists. Discrepancies are noted in the analytical file and appropriate data flags are used. If data is determined to be outside of control limits, the data is flagged on the report of analysis.

Laboratory personnel must review matrix spikes/matrix spike duplicates, lab blanks, and lab duplicates to ensure they are acceptable. The sample collector must compare the sample descriptions with the field sheets for consistency and ensure that any anomalies in the data are documented. The contractor must perform a final review and approval to ensure that the data meets the quality objectives of this QAPP and, if applicable, the SSQA. The contractor's review and approval is a check on the reviews conducted by the laboratory to ensure consistency of all field and analytical data that is generated by the contractor.

D.3 RECONCILIATION WITH USER REQUIREMENTS

Once the final report is submitted, the BVCP Project Officer will review the field duplicates to determine if they appear to indicate a problem with meeting quality objectives. If problems are indicated, the BVCP Project Officer will contact the contractor to discuss and attempt to reconcile the issue. Completeness will also be evaluated to determine if the completeness goal for this project has been met. If data quality indicators do not meet the project's requirements as outlined in this QAPP and applicable SSQA, the data may be discarded and re-sampling may occur. The BVCP Project Officer should determine the cause of the failure (if possible) and make the decision whether to discard the data and re-sample. If the failure is tied to the analyses, calibration and maintenance techniques must be reassessed as identified by the appropriate lab personnel. If the failure is associated with the sample collection and re-sampling is needed, the sampling methods and procedures must be reassessed as identified by the field audit process.

Corrective action must be undertaken by all parties to address specific problems as they arise. Corrective actions required should be identified through the use of control charts for chemical analyses, precision and accuracy data, through performance auditing, and through systems audits.

REFERENCES

• EPA Guidance on Environmental Data Verification and Data Validation EPA/240/R-02/004 November 2002.

• EPA Guidance Data Quality Assessment: A Reviewer's Guide EPA/240/B-06/002 February 2006.

• EPA Guidance Data Quality Assessment: Statistical Methods for Practitioners EPA/240/B-06/003 February 2006.

• EPA Guidance on Systematic Planning Using the Data Quality Objective Process EPA/240/B-06/001 February 2006.

• EPA Guidance for Quality Assurance Project Plans (G-5), U.S. EPA, December 2002.

• EPA Requirements for Quality Assurance Project Plans (R-5), U.S. EPA, March 2001DNR-ESP-210-Quality Assurance/Quality Control for Environmental Data Collection

APPENDIX A: LISTING OF ACRONYMS & TERMS

ACM	Asbestos-Containing Material
BA	Brownfield Assessment
BVCP	Brownfields/Voluntary Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DEQ	Division of Environmental Quality
DTL	Default Target Level
DQO	Data Quality Objectives
EPA	United States Environmental Protection Agency
HAZWOPER	Hazardous Waste Operations and Emergency Response
LBP	Lead-Based Paint
MCL	Maximum Contaminant Level
MRBCA	Missouri Risk-based Corrective Action Process
NELAC	National Environmental Laboratory Accreditation Conference
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
REC	Recognized Environmental Condition
RFP	Request for Proposal
SOP	Standard Operating Procedure
SSQA	Site-Specific Quality Assurance Project Plan Addendum
SVOC	Semi-Volatile Organic Compound
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound

Duplicate or co-located sample is a sample obtained from the same location, at the same time, and of the same material as the original sample. Duplicate water samples are used primarily to assess precision associated with sampling methodology, and to a lesser extent sample heterogeneity and analytical procedures. Duplicate soil samples are used primarily to determine the variability or heterogeneity of the sampled media. Due to the heterogeneity of soils, caution must be used if attempting to assess precision associated with sampling methodology or analytical procedures.

Hazardous Substance means a substance defined as hazardous pursuant to federal rule 40 CFR 302.4, which includes asbestos and polychlorinated biphenyls (PCBs); any substance designated pursuant to Section 311(b)(2)(A) of the federal Water Pollution Control Act; any toxic pollutant listed under Section 307(a) of the federal Water Pollution Control Act; any hazardous air pollutant listed under Section 112 of the Clean Air Act; any imminently hazardous chemical substance or mixture with respect to which the Administration of EPA has taken action pursuant to Section 7 of the Toxic Substances Control Act; any hazardous waste; any hazardous material designated by the Secretary of the U.S. Department of Transportation under the Hazardous Materials Transportation Act; any radioactive materials; or any petroleum product.

Hazardous waste means waste defined to be hazardous pursuant to the Missouri Hazardous Waste Management Law Section 260.350 to Section 260.430 or pursuant to federal rule 40 CFR 261.

Replicate split sample is obtained by dividing or splitting one sample that has been mixed or homogenized into two samples for separate analysis. A replicate split is collected primarily to assess precision associated with analytical procedures and to a lesser extent sample handling procedures.

Replicate split samples of soils or other non-aqueous materials are not recommended if volatile organics analyses are requested due to the potential loss of the volatiles during the mixing process. Duplicate samples for volatile organics analyses are sometimes collected prior to mixing, however, there may be a greater potential for inconsistency due to the heterogeneous nature of soils or other non-aqueous media.

APPENDIX B: ANALYTICAL REQUIREMENTS

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The detection limits, as specified in 40 CFR 136 Appendix A and the EPA SW-846 Methods, are sufficient for BAs. The accuracy and precision of each analytical method are determined by using spikes and spike duplicate analyses, as specified in the EPA SW-846 methods.

APPENDIX D

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SITE-SPECIFIC QUALITY ASSURANCE ADDENDUM TO MDNR QAPP

MISSOURI DEPARTMENT OF NATURAL RESOURCES AIR AND LAND PROTECTION DIVISION HAZARDOUS WASTE PROGRAM BROWNFIELDS/VOLUNTARY CLEANUP PROGRAM (BVCP) SITE-SPECIFIC QUALITY ASSURANCE PROJECT PLAN ADDENDUM (SSQA)

SITE NAME AND LOCATION:

SITE NAME: Old Saw Shop Site

ADDRESS OR OTHER LOCATION IDENTIFIER: 835 State Highway 42

CITY: Iberia

Ι.

COUNTY: Miller

STATE:

Missouri ZIP:

65486

II. PROJECT MANAGEMENT INFORMATION:

CONTRACTOR: Seagull Environmental Technologies, Inc

ADDRESS: 121 NE 72nd Street, Gladstone, Missouri, 64118

FAX:

CONTRACTOR E-MAIL:

PHONE: 816-616-0026

It should be noted that Seagull is completing the RAP and SSQA; however, Seagull will not be conducting or overseeing the cleanup activities. A remediation contractor will be selected through a procurement process conducted by EIERA.

DISTRIBUTION LIST (Check as appropriate):

- X BVCP Project Manager:
- Consultant/Contractor Director:
- X Consultant/Contractor Project Manager:
- X Consultant/Contractor Project Field Superintendent:
- □ Consultant/Contractor Laboratory Personnel:
- □ Technicians (Specify all):
- X Other (Specify): EPA Region 7

PROJECT TYPE (Check as appropriate): □ Site Investigation/Characterization ★ Remedial Action □ Risk Management □ Other (specify):

PROJECT DESCRIPTION: (Note: This SSQA supplements the Generic QAPP for Brownfields/Voluntary Cleanup Program Sites, and includes documentation only for the specific site as indicated above.)

This Remedial Action Plan outlines an approach to remediate metals-contaminated soil at the site. Remediation will be conducted in accordance with federal, state, and local regulations. Confirmation sampling will be completed to confirm attainment of site cleanup goals.

DATA QUALITY OBJECTIVES AND CRITERIA:

Detection Limits:	According to Generic Site Assessment QAPP	Identified in attached table
Accuracy:	According to Generic Site Assessment QAPP	Identified in attached table
Representativeness:	According to Generic Site Assessment QAPP	Identified in attached table
Comparability:	* According to Generic Site Assessment QAPP	Identified in attached table
Completeness:	* According to Generic Site Assessment QAPP	Identified in attached table

SPECIAL TRAINING/CERTIFICATION REQUIREMENTS:
DOCUMENTATION AND RECORDS (Check appropriate boxes): □ Field Analytical Sheets
A. General Sampling Approach (Check appropriate boxes): □ Judgmental Sampling □ Transect Sampling □ Search Sampling ※ Systematic Grid □ Random Sampling □ Stratified Random Sampling □ Systematic Random Sampling B. Screening/Definitive Sampling (Check appropriate boxes): □ Screening without Definitive Confirmation □ Screening With Definitive Confirmation NOTE: Minimum Confirmation Rate of % for All Field Analytical Screening Samples Collected * Definitive Sampling
SAMPLING METHODS (Specify all to be utilized): Matrix: Methods: SOPs/Guidance: Sampling Equipment Proposed: See Remedial Action Plan Section 5.0, Remedial Action Tasks.
SAMPLE HANDLING AND CUSTODY (Check appropriate box): In accordance with Generic QAPP and SOPs Other (specify): See Remedial Action Plan Section 5.0 (Remedial Action Tasks).
ANALYTICAL METHODS (Check appropriate box):
See Remedial Action Plan Section 5.0 Remedial Action Tasks and Table 6. QUALITY CONTROL (Check appropriate box):
Describe Field QC Samples to be collected: See Remedial Action Plan Section 7.0 Quality Control Procedures.

Revised 07/12/05

B/VCP SITE-SPECIFIC QAPP ADDENDUM FORM

INSTRUMENT/EQUIPMENT TESTING, INSPECTION, CALIBRATION/FREQUENCY AND MAINTENANCE (Check appropriate box):			
□ Not Applicable			
Describe instrument/equipment, etc. proposed for use in this project subject to the above requirements:			
Testing, inspection, and maintenance of laboratory equipment will be performed in accordance with the previously referenced SOPs and/or manufacturers' recommendations.			
INSPECTION/ACCEPTANCE OF SUPPLIES AND CONSUMABLES (Check appropriate box):			
□ Not Applicable			
NON-DIRECT MEASUREMENTS (Check appropriate box):			
□ Not Applicable			
DATA MANAGEMENT (Check appropriate box):			
✤ In accordance with Generic QAPP □ Specific requirements (state):			
ASSESSMENT AND RESPONSE ACTIONS (Check appropriate box):			
✤ In accordance with Generic QAPP □ Specific requirements (state):			
REPORTS TO MANAGEMENT (Check appropriate box):			
 ✤ In accordance with Generic QAPP □ Specific requirements (state): See Remedial Action Plan, Section 2.2 			
DATA VALIDATION AND USABILITY (Check appropriate box):			
✤ Data review and verification will be performed by the contractor or delegate in accordance with Generic QAPP, with data validation conducted according to USEPA guidance and Generic QAPP			
Data review, validation and verification will be performed as follows, with data validation conducted according to alternate methods (describe):			
Field analysis utilized? Yes No _X (If yes, memorandum, field analytical sheets, etc. from field analyst should be reviewed by the contractor after completion of field analysis).			
RECONCILIATION WITH USER REQUIREMENTS (Check appropriate box):			
✤ In accordance with Generic QAPP □ Specific requirements (state):			

Revised 07/12/05

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B/VCP SITE-SPECIFIC QAPP ADDENDUM FORM

APPROVALS:

BVCP Project Manager Name	Signature	Date
Contractor Director Name	Signature	Date
Contractor Project Manager Name	Signature	Date
Contractor Field Superintendent Name	Signature	Date

PERFORMANCE BOND

ATTACHMENT C

KNOW ALL MEN BY THESE PRESENTS that_____

principal and

as , as surety are

held and firmly bound to the Lake of the Ozarks Council of Local Governments, in the sum of FULL Contract amount in words and numbers

Dollars (\$______) to be paid to the Lake of the Ozarks Council of Local Governments, and for the lawful payment of said sum we, and each of us, hereby bind ourselves, our heirs, our executors, administrators, successors and assigns firmly by these presents,

The condition of this bond is such that:

WHEREAS the above-named principal did on the _____ day of _____, 2020, enter into a contract with the Lake of the Ozarks Council of Local Governments for:

Enviornmental Remediation In Accordance with INVITATION FOR BID #2020-01

NOW, THEREFORE, if the above-named principal shall well and truly:

Keep and perform all of the contract on his, its' or their part to be kept and performed, and faithfully comply with all of the laws of the State of Missouri applicable to the aforesaid contract and this bond and the conditions of said contract, and at the time stipulated in said contract or within a reasonable time if not time as stipulated;

Then this obligation shall be void, otherwise it shall remain in full force and effect.

It is understood and agreed that this bond shall not be avoided because of changes in the plans or specifications for the work, or because of extensions of time for the performance of work, and the surety above-named does hereby waive notice of and does hereby consent to any such changes or extensions of time.

In addition to any other remedies which may be had by the Lake of the Ozarks Council of Local Governments (Owner), under this bond, the Owner may in case of default or abandonment of the contract hereinbefore referred to notify the surety hereto by registered or certified mail directed to the surety or to its attorney-in-fact for it authorized at the time of the execution of this bond that such default or abandonment has occurred, which such notice need not be detailed but may be in generalities, and the surety shall have the obligation to inquire into the nature of such default or abandonment and to thereafter within sixty (60) days from the date of such notice proceed toward completion without undue delay of the improvement in accordance with the contract aforesaid; and in the event of default on the part of the surety to proceed to complete as aforesaid the Lake of the Ozarks Council of Local Governments, shall have the right to itself complete the work, and upon completion to be reimbursed by the principal, the surety or both of them for the cost of said completion including cost of re-advertisements, preparation of new plans, contracts, and all other ordinary and reasonable expenses in connection with completion of the work.

This bond shall be governed by the laws of the State of Missouri. The parties hereto agree that should any litigation arise out of this bond, the venue for such litigation shall be in the Circuit Court of Camden County, Missouri, and the parties hereto expressly waive all rights to venue inconsistent therewith.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 2020, or have caused these presents to be executed by our authorized agent on the same day and year.

Company: ______

Ву: _____

Lake of the Ozarks Council of Local Governments representative

Approved as to Form:

Surety:	

Ву: _____

PAYMENT BOND FOR LABOR AND MATERIALS

KNOW ALL MEN BY THESE PRESENTS that	as
principal and	, as surety are held
and firmly bound to the Lake of the Ozarks Council of Local Governments, in the sum of FULL words and numbers	Contract amount in

Dollars (\$______) to be paid to the Lake of the Ozarks Council of Local Governments, and for the lawful payment of said sum we, and each of us, hereby bind ourselves, our heirs, our executors, administrators, successors and assigns firmly by these presents,

The condition of this bond is such that:

WHEREAS the above-named principal did on the _____ day of _____, 2020, enter into a contract with the Lake of the Ozarks Council of Local Governments for:

Environmental Remediation In Accordance with INVITATION FOR BID #2020-01

NOW, THEREFORE, if the above-named principal shall well and truly:

Pay for any and all materials, lubricants, oil, gasoline, grain, hay, feed, coal and coke, repairs on machinery, groceries and foodstuffs, equipment and tools consumed or used in connection with the construction of the work afore-described, and all insurance premiums both for compensation and for all other kinds of insurance on said work above described, and for all labor performed in the work whether by the principal or by subcontractor or otherwise and at the prevailing hourly rate of wages made applicable to the work as specified by the contract (if a prevailing hourly rate of wages shall have been so specified).

Then this obligation shall be void, otherwise it shall remain in full force and effect.

It is understood and agreed that this bond shall not be avoided because of changes in the plans or specifications for the work, or because of extensions of time for the performance of work, and the surety above-named does hereby waive notice of and does hereby consent to any such changes or extensions of time.

It is understood and agreed that any person entitled to payment for any of the matters upon which this bond is conditioned shall have the right in his name or in the name of the Lake of the Ozarks Council of Local Governments, to bring suit upon this bond for the recovery of such payment. It is further agreed that no such suit shall be instituted after the expiration of ninety (90) days from the completion of the contract hereinbefore referred to.

This bond shall be governed by the laws of the State of Missouri. The parties hereto agree that should any litigation arise out of this bond, the venue for such litigation shall be in the Circuit Court of Camden County, Missouri, and the parties hereto expressly waive all rights to venue inconsistent therewith.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this ______ day of _____, 2020, or have caused these presents to be executed by our authorized agent on the same day and year.

Company: ______

Ву:_____

Approved as to Form:

Lake of the Ozarks Council of Local Governments Representative

Surety:	

Ву:

EXAMPLE ATTACHMENT D

AFFIDAVIT

STATE OF MISSOURI _____OF_____) SS

I, the undersigned, am over the age of 18 years and have personal knowledge of the matters stated herein.

I am a duly authorized officer of ______, a _____ [corporation] [limited liability company] (the "*Company*") and am authorized by the Company to attest to the matters set forth herein.

The Lake of the Ozarks Council of Local Governments and the Company are parties to the [INSERT NAME OF AGREEMENT], dated ______, ____ (the "Agreement").

I hereby affirm that the Company is enrolled and participates in a "federal work authorization program" as defined in Section 285.525 of the Revised Statutes of Missouri, as amended, with respect to the employees of Company working in connection with the Environmental Cleanup (as such term is defined in the Agreement).

The Company does not knowingly employ any person who is an "unauthorized alien" as defined in Section 285.525 of the Revised Statutes of Missouri, as amended, in connection with the Environmental Cleanup.

Further Affiant Sayeth Not.

By: ______ Title: _____

Subscribed and sworn to before me this _____ day of _____.

Notary Public

My commission expires on:

ATTACHMENT E

AFFIDAVIT OF COMPLIANCE

To be submitted with Vendor's Bid	
We DO NOT take exception to the IFB D	Documents/Requirements.
We TAKE exception to the IFB Documer	nts/Requirements as follows:
Specific exceptions are as follows:	
Company Namo	ADDENDA
Company Name	
By Authorized Person's Signature	Bidder acknowledges receipt of the following addendum:
	Addendum No
Print or type name and title of signer	Addendum No
Company Address	Addendum No
Telephone Number	
Fax Number	
Date	

This certification is required by the Department of Education regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR Part 85, for all lower tier transactions meeting the threshold and tier requirements stated at Section 85.110.

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled A Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions, and without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to check the Nonprocurement List.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarrent.

Certification

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* NAME OF APPLICA	NT	
* PRINTED NAME AN	ID TITLE OF AUTHORIZED REPRESEN	TATIVE
Prefix:	* First Name:	Middle Name:
* Last Name:		Suffix:
* Title:		
	pleted on submission to Grants.gov	DATE Completed on submission to Grants.gov

Optional - You may attach 1 file to this page.

Add Attachment Delete Attachment View Attachment

ATTACHMENT "G"

"General Decision Number: MO20200001 01/03/2020

Superseded General Decision Number: MO20190001

State: Missouri

Construction Types: Heavy and Highway

Counties: Missouri Statewide.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections

beta.SAM.gov

under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date	
0	01/03/2020	
CARP0002-002 05/01/201	9	
ST. LOUIS COUNTY AND CI	TY	
	Rates	Fringes
Carpenters	\$ 38.02	17.77
CARP0005-006 05/03/201	5	
CASS (Dishanda Cabayan		
CASS (Richards-Gebauer	AFB ONLY), CLAY, JACKSON,	PLATTE AND RAY
COUNTES		
	Rates	Fringes
Carpenters:		
CARPENTERS & LATHE		15.55
MILLWRIGHTS & PILE		15.55
	•	
CARP0011-001 05/01/201	9	
	Rates	Fringes
Carpenter and Piledrive	r	
ADAIR, AUDRAIN (We		
Hwy 19), BOONE, CA		
CHARITON, COLE, CO		
HOWARD, KNOX,LINN,		
MILLER, MONITEAU,M		
OSAGE, PUTNAM, RAN	DOLPH,	
SCHUYLER, SHELBY A	ND	

https://beta.sam.gov/wage-determination/MO20200001/0/document

SULLIVAN COUNTIES.....\$ 32.28

ATCHISON, ANDREW, BATES,

17.77

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CALDWELL, CARROLL, DAVIESS,	
DEKALB, GENTRY, GRUNDY,	
HARRISON, HENRY, HOLT,	
LIVINGSTON, MERCER,	
NODAWAY,ST. CLAIR, SALINE	
AND WORTH COUNTIES\$ 30.76	17.77
AUDRAIN (East of Hwy.19),	
RALLS, MARION, LEWIS,	
CLARK AND SCOTLAND COUNTIES.\$ 32.29	17.77
BARRY, BARTON, CAMDEN,	
CEDAR, CHRISTIAN, DADE,	
DALLAS, DOUGLAS, GREENE,	
HICKORY, JASPER, LACLEDE,	
LAWRENCE, MCDONALD,	
NEWTON, OZARK, POLK,	
STONE, TANEY, VERNON,	
WEBSTER AND WRIGHT COUNTIES.\$ 30.36	17.77
BENTON, MORGAN AND PETTIS\$ 30.81	17.77
BOLLINGER, BUTLER, CAPE	
GIRARDEAU, DUNKLIN,	
MISSISSIPPI, NEW MADRID,	
PEMISCOT, PERRY, STE.	
GENEVIEVE, SCOTT, STODDARD	
AND WAYNE COUNTIES\$ 32.14	17.77
BUCHANAN, CLINTON, JOHNSON	
AND LAFAYETTE COUNTIES\$ 31.49	17.77
CARTER, HOWELL, OREGON AND	
RIPLEY COUNTIES\$ 31.09	17.77
CRAWFORD, DENT, GASCONADE,	
IRON, MADISON, MARIES,	
MONTGOMERY, PHELPS,	
PULASKI, REYNOLDS, SHANNON	
AND TEXAS COUNTIES\$ 32.13	17.77
FRANKLIN COUNTY\$ 35.56	17.77
JEFFERSON AND ST. CHARLES	
COUNTIES\$ 38.02	17.77
LINCOLN COUNTY	17.77
PIKE, ST. FRANCOIS AND	
WASHINGTON COUNTIES\$ 32.92	17.77
WARREN COUNTY	17.77

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ELEC0001-002 06/03/2018

BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, DUNKLIN, FRANKLIN, IRON, JEFFERSON, LINCOLN, MADISON, MISSISSIPPI, NEW MADRID, PEMISCOT, PERRY,REYNOLDS, RIPLEY, ST. CHARLES, ST. FRANCOIS, ST. LOUIS (City and County), STE. GENEVIEVE, SCOTT, STODDARD, WARREN, WASHINGTON AND WAYNE COUNTIES

Rates Fringes

Electricians...... \$ 38.12 15.60

ELEC0002-001 09/01/2018

ADAIR, AUDRAIN, BOONE, CALLAWAY, CAMDEN, CARTER, CHARITON, CLARK, COLE, COOPER, CRAWFORD, DENT, FRANKLIN, GASCONADE, HOWARD, HOWELL, IRON, JEFFERSON, KNOX, LEWIS, LINCON, LINN, MACON, MARIES, MARION, MILLER, MONITEAU, MONROE, MONTGOMERY, MORGAN, OREGON, OSAGE, PERRY, PHELPS, PIKE, PULASKI, PUTNAM, RALLS, RANDOLPH, REYNOLDS, RIPLEY, ST. CHARLES, ST. FRANCOIS, ST. LOUIS (City and County), STE. GENEVIEVE, SCHUYLER, SCOTLAND, SHANNON, SHELBY, SULLIVAN, TEXAS, WARREN AND WASHINGTON COUNTIES

Rates Fringes Line Construction: Equipment Operator......\$ 39.50 19.96

Groundman	& Truck Driver	.\$ 30.36	16.67
Lineman &	Cable Splicer	.\$ 45.90	22.27

ELEC0053-004 09/02/2018

Rates

Fringes

Line Construction: (ANDREW,

ATCHINSON, BARRY, BARTON,

BUCHANAN, CALDWELL, CEDAR,

CHRISTIAN, CLINTON, DADE,

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DOUGLAS, GENTRY, GREENE,

GRUNDY, HARRISON, HICKORY,

HOLT, JASPER, LACLEDE,

LAWRENCE, LIVINGSTON,

MCDONALD, MERCER, NEWTON,

NODAWAY, OZARK, POLK, ST.

CLAIR, STONE, TANEY, VERNON,

WEBSTER, WORTH AND WRIGHT

COUNTIES)

Groundman Powderman\$ 31.56	14.90
Groundman\$ 29.46	14.29
Lineman Operator\$ 42.24	18.00
Lineman\$ 45.70	19.00

Line Construction; (BATES,

BENTON, CARROLL, CASS, CLAY,

HENRY, JACKSON, JOHNSON,

LAFAYETTE, PETTIS, PLATTE,

RAY AND SALINE COUNTIES)

,		
Groundman Powderman\$	31.56	14.90
Groundman\$	29.46	14.29
Lineman Operator\$	42.24	18.00
Lineman\$	45.70	19.00

* ELEC0095-001 06/01/2019

BARRY, BARTON, CEDAR, DADE, JASPER, LAWRENCE, MCDONALD, NEWTON, ST CLAIR, AND VERNON COUNTIES

Rates Fringes

Electricians:

Cable Splicers\$	12.19
 p	 14.57

ELEC0124-007 08/26/2019

BATES, BENTON, CARROLL, CASS, CLAY, COOPER, HENRY, JACKSON, JOHNSON, LAFAYETTE, MORGAN, PETTIS, PLATTE, RAY AND SALINE COUNTIES:

	Rates	Fringes	
Electricians		22.92	
ELEC0257-003 03/01/2019			
AUDRAIN (Except Cuivre Township), BOONE, CALLAWAY, CAMDEN, CHARITON, COLE, CRAWFORD, DENT, GASCONADE, HOWARD, MARIES, MILLER, MONITEAU, OSAGE, PHELPS AND RANDOLPH COUNTIES			
	Rates	Fringes	
Electricians:			
Cable Splicers	\$ 30.42	16.085	
Electricians	\$ 33.25	18.18	
ELEC0350-002 12/01/2018 ADAIR, AUDRAIN (East of Highway 19), CLARK, KNOX, LEWIS, LINN, MACON, MARION, MONROE, MONTGOMERY, PIKE, PUTNAM, RALLS, SCHUYLER, SCOTLAND, SHELBY AND SULLIVAN COUNTIES			
	Rates	Fringes	
Electricians		17.20	
ELEC0453-001 09/01/2019			
	Rates	Fringes	
Electricians:			
CHRISITAN, DALLAS,			
DOUGLAS, GREENE, HICKORY,			
HOWELL, LACLEDE, OREGON,			
OZARK, POLK, SHANNON,			
WEBSTER and WRIGHT COUNTIES.	\$ 27.88	14.99	
PULASKI and TEXAS COUNTIES	\$ 32.53	15.46	

beta.SAM.gov STONE and TANEY COUNTIES....\$ 23.67 14.17 _____ ELEC0545-003 06/01/2019 ANDREW, BUCHANAN, CLINTON, DEKALB, ATCHISON, HOLT, MERCER, GENTRY, HARRISON, DAVIESS, GRUNDY, WORTH, LIVINGSTON, NODAWAY, AND CALDWELL COUNTIES Rates Fringes Electricians:.....\$ 32.00 17.30 _____ ELEC0702-004 01/01/2019 BOLLINGER, BUTLER, CAPE GIRARDEAU, DUNKLIN, MADISON, MISSISSIPPI, NEW MADRID, PEMISCOT, SCOTT, STODDARD AND WAYNE COUNTIES Rates Fringes Line Construction: Groundman - Class A.....\$ 29.48 14.55 Groundman-Equipment Operator Class II (all other equipment).....\$ 37.35 16.83 Heavy-Equipment Operator Class I (all crawler type equipment D-4 and larger)...\$ 42.59 18.35 Lineman.....\$ 51.88 21.04

ENGI0101-001 05/01/2016

ANDREW, ATCHISON, BATES, BENTON, BUCHANAN, CALDWELL, CARROLL, CHARITON, CLINTON, COOPER, DAVIESS, DEKALB, GENTRY, GRUNDY, HARRISON, HENRY, HOLT, HOWARD, JOHNSON, LAFAYETTE, LINN, LIVINGSTON, MERCER, NODAWAY, PETTIS, SALINE, SULLIVAN AND WORTH COUNITES

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Power equipment operators:

GROUP 1\$ 33.38	15.92
GROUP 2\$ 32.98	15.92
GROUP 3\$ 30.98	15.92

Rates

Fringes

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt roller operator, finish; asphalt paver and spreader; asphalt plant operator; auto grader or trimmer or sub-grader; backhoe; blade operator (all types); boilers -2; booster pump on dredge; bulldozer operator; boring machine (truck or crane mounted); clamshell operator; concrete mixer paver; concrete plant operator; concrete pump operator; crane operator; derrick or derrick trucks; ditching machine; dragline operator; dredge engineman; dredge operator; drill cat with compressor mounted (self-contained) or similar type self- propelled rotary drill (not air tract); drilling or boring machine (rotary-self-propelled); finishing machine operator; greaser; high loader-fork lift-skid loader (all types); hoisting engineer (2 active drums); locomotive operator (standard guage); mechanics and welders (field and plants); mucking machine operator; pile drive operator; pitman crane or boom truck (all types); push cat; quad track; scraper operators (all types); shovel operator; sideboom cats; side discharge spreader; skimmer scoop operators; slip form paver operator (CMI, Rex, Gomeco or equal); la tourneau rooter (all tiller types); tow boat operator; truck crane; wood and log chippers (all types).

GROUP 2: A-frame truck operator; articulated dump truck; back filler operator; boilers (1); chip spreader; churn drill operator; compressor; concrete mixer operator, skip loader; concrete saws (self-propelled); conveyor operator; crusher operator; distributor operator; elevating grader operator; farm tractor (all attachments); fireman rig; float operator; form grade operator; hoisting engine (one drum); maintenance operator; multiple compactor; pavement breaker, self-propelled hydra-hammer (or similar type); paymill operator; power shield; pumps; roller operator (with or without blades); screening and washing plant; self-propelled street broom or sweeper; siphons and jets; straw blower; stump cutting machine; siphons and jets; tank car heater operator (combination boiler and booster); welding machine; vibrating machine operator (not hand held); welding machine.

GROUP 3: (a) Oiler;

- (b) Oiiler driver
- (c) Mechanic.

HOURLY PREMIUMS:

THE FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$.25) ABOVE GROUP 1 RATE: Dragline operator - 3 yds. & over; shovel 3 yds. & over; clamshell 3 yds. & over; Crane, rigs or piledrivers, 100' of boom or over (incl. jib.), hoist each additional active drum over 2 drums

THE FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$.50) ABOVE GROUP 1 RATE: Tandem scoop operator; crane, rigs or piledrivers 150' to 200' of boom (incl. jib.)

THE FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$.75) ABOVE GROUP 1 RATE: Crane rigs, or piledrivers 200 ft. of boom or over (including jib.)

ENGI0101-005 04/01/2018

CASS, CLAY, JACKSON, PLATTE AND RAY COUNTIES

Rates

Fringes

Power equipment operators:

GROUP 1\$ 36.22	17.99
GROUP 2\$ 35.18	17.99
GROUP 3\$ 30.71	17.99
GROUP 4\$ 34.06	17.99

GROUP 1: Asphalt roller operator, finish; asphalt paver and spreader; asphalt plant operator; auto grader or trimmer or sub-grader; backhoe; blade operator (all types); boilers-2; booster pump on dredge; boring machine (truck or crane mounted); bulldozer operator; clamshell operator; concrete cleaning decontamination machine operator; concrete mixer paver; concrete plant operator; concrete pump operator; crane operator; derrick or derrick trucks; ditching machine; dragline operator; dredge engineman; dredge operator; drillcat with compressor mounted (self-contained) or similar type self propelled rotary drill (not air tract); drilling or boring machine (rotary self-propelled); finishing machine operator; greaser; heavy equipment robotics operator/mechanic; horizontal directional drill operator; horizontal directional drill locator; loader-forklift - skid loader (all types); hoisting engineer (2 active drums); locomotive operator (standard guage); master environmental maintenance mechanic; mechanics and welders (field and plants); mucking machine operator; piledrive operator; pitman crane or boom truck (all types); push cat; quad-track; scraper operators (all types); shovel operator; side discharge spreader; sideboom cats; skimmer scoop operator; slip-form paver (CMI, REX, Gomaco or equal); la tourneau rooter (all tiller types); tow boat operator; truck crane; ultra high perssure waterjet cutting tool system operator/mechanic; vacuum blasting machine operator/mechanic; wood and log chippers (all types)

GROUP 2: ""A"" Frame truck operator; back filler operator; boilers (1); chip spreader;churn drill operator; concrete mixer operator, skip loader; concrete saws (self-propelled); conveyor operator; crusher operator; distributor operator; elevating grader operator; farm tractor (all attachments); fireman rig; float operator; form grader operator; hoisting engine (1 drum); maintenance operator; multiple compactor; pavement breaker, self-propelled hydra- hammer (or similar type); power shield; paymill operator; pumps; siphons and jets; stump cutting machine; tank car heater operator (combination

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boiler and booster); compressor; roller operator (with or without blades); screening and washing plant; self-propelled street broom or sweeper; straw blower; tank car heater operator (combination boiler and booster); vibrating machine operator (not hand held)

GROUP 3: Oilers

GROUP 4: Oiler Driver (All Types)

FOOTNOTE:

HOURLY PREMIUMS FOLLOWING CLASSIFICATIONS SHALL RECEIVE
(\$1.00) ABOVE GROUP 1 RATE:
Clamshells - 3 yd. capacity or over; Cranes or rigs, 80 ft.
of boom or over (including jib); Draglines, 3 yd. capacity
or over;
Piledrivers 80 ft. of boom or over (including jib);
Shovels & backhoes, 3 yd. capacity or over.

ENGI0101-022 05/01/2016

BARRY, BARTON, CAMDEN, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, JASPER, LACLEDE, LAWRENCE, MCDONALD, NEWTON, OZARK, POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER AND WRIGHT COUNTIES and CITY OF SPRINGFIELD

Rates Fringes

Power equipment operators:

GROUP 1\$ 30.82	13.30
GROUP 2\$ 29.88	13.30
GROUP 3\$ 30.27	13.30
GROUP 4\$ 28.22	13.30

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt finishing machine & trench widening spreader; asphalt plant console operator; autograder; automatic slipform paver; backhoe; blade operator - all

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types; boat operator - tow; boilers-2; central mix concrete plant operator; clamshell operator; concrete mixer paver; crane operator; derrick or derrick trucks; ditching machine; dozer operator; dragline operator; dredge booster pump; dredge engineman; dredge operator; drill cat with compressor mounted on cat; drilling or boring machine rotary self-propelled; highloader; hoisting engine - 2 active drums; launch hammer wheel; locomotive operator; standard guage; mechanic and welders; mucking machine; off-road trucks; piledriver operator; pitman crane operator; push cat operator; sideboom cats; skimmer scoop operators; trenching machine operator; truck crane.

GROUP 2: A-frame; asphalt hot-mix silo; asphalt plant fireman (drum or boiler); asphalt plant man; asphalt plant man; asphalt plant mixer operator; asphalt roller operator; backfiller operator; barber-greene loader; boat operator (bridges and dams); chip spreader; concrete mixer operator - skip loader; concrete plant operator; concrete pump operator; crusher operator; dredge oiler; elevating grader operator; fork lift; greaser-fleet; hoisting engine - 1; locomotive operator - narrow gauge; multiple compactor; pavement breaker; powerbroom - self-propelled; power shield; rooter; side discharge concrete spreader; slip form finishing machine; stumpcutter machine; throttle man; tractor operator (over 50 h.p.); winch truck.

GROUP 3: Boilers - 1; chip spreader (front man); churn drill operator; clef plane operator; concrete saw operator (selfpropelled); curb finishing machine; distributor operator; finishing machine operator; flex plane operator; float operator; form grader operator; pugmill operator; roller operator, other than high type asphalt; screening & washing plant operator; siphons & jets; sub-grading machine operator; spreader box operator, self-propelled (not asphalt); tank car heater operator (combination boiler & booster); tractor operator (50 h.p. or less); Ulmac, Ulric or similar spreader; vibrating machine operator, not hand; HOURLY PREMIUMS:

The following classifications shall receive \$.25 above GROUP 1 rate: Clamshells - 3 yds. or over; Cranes - Rigs or Piledrivers, 100 ft. of boom or over (including jib); Draglines - 3 yds. or over; Hoists - each additional active drum over 2 drums; Shovels - 3 yds. or over; The following classifications shall receive \$.50 above GROUP 1 rate: Tandem scoop operator; Cranes - Rigs or Piledrivers, 150 ft. to 200 ft. of boom (including jib); Tandem scoop. The following classifications shall receive \$.75 above GROUP 1 rate: Cranes - Rigs or Piledrivers, 200 ft. of boom or over (including jib.). ENGI0513-004 05/06/2019 FRANKLIN, JEFFERSON, LINCOLN, ST CHARLES, AND WARREN COUNTIES

Rates Fringes

Power equipment operators:

GROUP 1\$ 34.36	27.36
GROUP 2\$ 34.36	27.36
GROUP 3\$ 33.06	27.36
GROUP 4\$ 32.61	27.36

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Backhoe, Cable; Backhoe, Hydraulic (2 cu yds bucket and under regardless of attachment, one oiler for 2 or 3, two oilers for 4 through 6); Backhoe, Hydraulic over 2 cu yds; Cableway; Crane, Crawler or Truck; Crane, Hydraulic -Truck or Cruiser mounted, 16 tons and over; Crane, Locomotive; crane with boom including jib over 100 ft from

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pin to pin; Crane using rock socket tool; Derrick, Steam; Derrick Car and Derrick Boat; Dragline, 7 cu yds and over; Dredge; Gradall, Crawler or tire mounted; Locomotive, Gas, Steam & other powers; Pile Driver, Land or Floating; Scoop, Skimmer; Shovel, Power (Electric, Gas, Steam or other powers); Shovel, Power (7 cu yds and over); Switch Boat; Whirley; Air Tugger with air compressor; Anchor Placing Barge; Asphalt Spreaker; Athey Force Feeder Loader, self-propelled; Backfilling Machine; Boat Operator - Push Boat or Tow Boat (job site); Boiler, High Pressure Breaking in Period; Boom Truck, Placing or Erecting; Boring Machine, Footing Foundation; Bullfloat; Cherry Picker; Combination Concrete Hoist and Mixer (such as Mixermobile); Compressor, Two 125 CFM and under; Compressor, Two through Four over 125 CFM; Compressor when operator runs throttle; Concrete Breaker (Truck or Tractor mounted); Concrete Pump (such as Pumpcrete machine); Concrete Saw (self-propelled); Concrete Spreader; Conveyor, Large (not selfpropelled) hoisting or moving brick and concrete into, or into and on floor level, one or both; Crane, Cimbing (such as Linden); Crane, Hydraulic - Rough Terrain, self-propelled; Crane, Hydraulic - Truck or Cruiser mounted - under 16 tons; Drilling machine - Self-powered, used for earth or rock drilling or boring (wagon drills and any hand drills obtaining power from other souces including concrete breakers, jackhammers and Barco equipmnet no engineer required); Elevating Grader; Engine Man, Dredge; Excavator or Powerbelt Machine; Finishing Machine, self- propelled oscillating screed; Forklift; Generators, Two through Six 30 KW or over; Grader, Road with power blade; Greaser; Highlift; Hoist, Concrete and Brick (Brick cages or concrete skips operating or on tower, Towermobile, or similar equipment); Hoist, Three or more drums in use; Hoist, Stack; Hydro-Hammer; Lad-A-Vator, hoisting brick or concrete; Loading Machine such as Barber-Greene; Mechanic on job site

GROUP 2: Air Tugger with plant air; Boiler (for power or heating shell of building or temporary enclosures in connection with construction work); Boiler, Temporary; Compressor, One over 125 CFM; Compressor, truck mounted; Conveyor, Large (not self- propelled); Conveyor, Large (not

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self- propelled) moving brick and concrete (distributing) on floor level; Curb Finishing Machine; Ditch Paving Machine; Elevator (outside); Endless Chain Hoist; Fireman (as required); Form Grader; Hoist, One Drum regardless of size (except brick or concrete); Lad-A-Vator, other hoisting; Manlift; Mixer, Asphalt, over 8 cu ft capacity; Mixer, one bag capacity or less; Mixer, without side loader, two bag capacity or more; Mixer, with side loader, regardless of size, not Paver; Mud Jack (where mud jack is used in conjenction with an air compressor, operator shall be paid \$.55 per hour in addition to his basic hourly rate for covering both operations); Pug Mill operator; Pump, Sump - self powered, automatic controlled over 2""; Scissor Lift (used for hoisting); Skid Steer Loader; Sweeper, Street; Tractor, small wheel type 50 HP and under with grader blade and similar equipment; Welding Machine, One over 400 amp; Winch, operating from truck

GROUP 3: Boat operator - outboard motor, job site; Conveyors
(such as Con-Vay-It) regardless of how used; Elevator
(inside); Heater operator, 2 through 6; Sweeper, Floor

GROUP 4: Crane type

HOURLY PREMIUMS:

Backhoe, Hydraulic 2 cu yds or less without oiler - \$2.00; Crane, climbing (such as Linden) - \$.50; Crane, Pile Driving and Extracting - \$.50 Crane with boom (including job) over 100 ft from pin to pin - add \$.01 per foot to maximum of \$4.00); Crane, using rock socket tool - \$.50; Derrick, diesel, gas or electric hoisting material and erecting steel (150 ft or more above ground) - \$.50; Dragline, 7 cu yds and over - \$.50; Hoist, Three or more drums in use - \$.50; Scoop, Tandem - \$.50; Shovel, Power - 7 cu yds and over - \$.50; Tractor, Tandem Crawler - \$.50; Tunnel, man assigned to work in tunnel or

tunnel shaft - \$.50;

Wrecking, when machines are working on

second floor or higher - \$.50

ENGI0513-006 05/01/2019

 Rates
 Fringes

 Power equipment operators:
 29.69

 GROUP 1.....\$ 29.34
 27.16

 GROUP 3.....\$ 29.14
 27.16

 GROUP 4.....\$ 25.49
 27.16

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt finishing machine & trench widening spreader, asphalt plant console operator; autograder; automatic slipform paver; back hoe; blade operator - all types; boat operator tow; boiler two; central mix concrete plant operator; clam shell operator; concrete mixer paver; crane operator; derrick or derrick trucks; ditching machine; dozer operator; dragline operator; dredge booster pump; dredge engineman; dredge operator; drill cat with compressor mounted on cat; drilling or boring machine rotary self-propelled; highloader; hoisting engine 2 active drums; launchhammer wheel; locomotive operator standrad guage; mechanics and welders; mucking machine; piledriver operator; pitman crane operator; push cat operator; guad-trac; scoop operator; sideboom cats; skimmer scoop operator; trenching machine operator; truck crane, shovel operator.

GROUP 2: A-Frame; asphalt hot-mix silo; asphalt roller operator asphalt plant fireman (drum or boiler); asphalt plant man; asphalt plant mixer operator; backfiller operator; barber-greene loader; boat operator (bridge & dams); chip spreader; concrete mixer operator skip loader; concrete plant operator; concrete pump operator; dredge oiler; elevating graded operator; fork lift; grease fleet;

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hoisting engine one; locomotive operator narrow guage; multiple compactor; pavement breaker; powerbroom self-propelled; power shield; rooter; slip-form finishing machine; stumpcutter machine; side discharge concrete spreader; throttleman; tractor operator (over 50 hp); winch truck; asphalt roller operator; crusher operator.

GROUP 3: Spreader box operator, self-propelled not asphalt; tractor operator (50 h.p. or less); boilers one; chip spreader (front man); churn drill operator; compressor over 105 CFM 2-3 pumps 4"" & over; 2-3 light plant 7.5 KWA or any combination thereof; clef plane operator; compressor maintenance operator 2 or 3; concrete saw operator (self-propelled); curb finishing mancine; distributor operator; finishing machine operator; flex plane operator; float operator; form grader operator; pugmill operator; riller operator other than high type asphalt; screening & washing plant operator; siphons & jets; subgrading machine operator; tank car heater (combination boiler & booster); ulmac, ulric or similar spreader; vibrating machine operator; hydrobroom.

GROUP 4: Oiler; grout machine; oiler driver; compressor over 105 CFM one; conveyor operator one; maintenance operator; pump 4"" & over one.

FOOTNOTE: HOURLY PREMIUMS

Backhoe hydraulic, 2 cu. yds. or under Without oiler - \$2.00 Certified Crane Operator - \$1.50; Certified Hazardous Material Operator \$1.50; Crane, climbing (such as Linden) - \$0.50; Crane, pile driving and extracting - \$0.50; Crane, with boom (including jib) over 100' from pin to pin add \$0.01 per foot to maximum of \$4.00; Crane, using rock socket tool - \$0.50; Derrick, diesel, gas or electric, hoisting material and erecting steel (150' or more above the ground) - \$0.50; Dragline, 7 cu. yds, and over - \$0.50; Hoist, three or more drums in use - \$0.50; Scoop, Tandem -\$0.50;

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Shovel, power - 7 cu. yds. or more - \$0.50; Tractor, tandem crawler - \$0.50; Tunnel, man assigned to work in tunnel or tunnel shaft -\$0.50;

Wrecking, when machine is working on second floor or higher -

\$0.50;

ENGI0513-007 05/06/2019

ST. LOUIS CITY AND COUNTY

Rates	Fringes
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Power equipment operators:

GROUP 1\$ 34.36	27.36
GROUP 2\$ 34.36	27.36
GROUP 3\$ 33.06	27.36
GROUP 4\$ 32.61	27.36

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Backhoe, cable or hydraulic; cableway; crane crawler or truck; crane, hydraulic-truck or cruiser mounted 16 tons & over; crane locomotive; derrick, steam; derrick car & derrick boat; dragline; dredge; gradall, crawler or tire mounted; locomotive, gas, steam & other powers; pile driver, land or floating; scoop, skimmer; shovel, power (steam, gas, electric or other powers); switch boat; whirley.

GROUP 2: Air tugger w/air compressor; anchor-placing barge; asphalt spreader; athey force feeder loader (selfpropelled); backfilling machine; backhoe-loader; boat operator-push boat or tow boat (job site); boiler, high pressure breaking in period; boom truck, placing or erecting; boring machine, footing foundation; bull- float; cherry picker; combination concrete hoist & mixer (such as mixer mobile); compressor (when operator runs throttle); concrete breaker (truck or tractor mounted); concrete pump, such as pump-crete machine; concrete saw (self-propelled),

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concrete spreader; conveyor, large (not self-propelled), hoisting or moving brick and concrete into, or into and on floor level, one or both; crane, hydraulic-rough terrain, self-propelled; crane hydraulic-truck or cruiser mounted-under 16 tons; drilling machines, self-powered use for earth or rock drilling or boring (wagon drills nd any hand drills obtaining power from other sources including concrete breakers, jackhammers and barco equipment-no engineer required); elevating grader; engineman, dredge; excavator or powerbelt machine; finishing machine, self-propelled oscillating screed; forklift; grader, road with power blade; highlift. greaser; hoist, stack, hydro-hammer; loading machine (such as barber-greene); machanic, on job site; mixer, pipe wrapping machines; plant asphalt; plant, concrete producing or ready-mix job site; plant heating-job site; plant mixing-job site; plant power, generating-job site; pumps, two through six self-powered over 2""; pumps, electric submersible, two through six, over 4""; quad-track; roller, asphalt, top or sub-grade; scoop, tractor drawn; spreader box; sub-grader; tie tamper; tractor-crawler, or wheel type with or without power unit, power take-offs and attachments regardless of size; trenching machine; tunnel boring machine; vibrating machine automatic, automatic propelled; welding machines (gasoline or diesel) two through six; well drilling machine

GROUP 3: Conveyor, large (not self-propelled); conveyor, large (not self-propelled) moving brick and concrete distributing) on floor level; mixer two or more mixers of one bag capacity or less; air tugger w/plant air; boiler, for power or heating on construction projects; boiler, temporary; compressor (mounted on truck; curb finishing machine; ditch paving machine; elevator; endless chain hoist; form grader; hoist, one drum regardless of size; lad-a-vator; manlift; mixer, asphalt, over 8 cu. ft. capacity, without side loader, 2 bag capacity or more; mixer, with side loader, regardless of size; pug mill operator; pump, sump-self-powered, automatic controlled over 2"" during use in connection with construction work; sweeper, street; welding machine, one over 400 amp.; winch operating from truck; scissor lift (used for hoisting);

tractor, small wheel type 50 h.p. & under with grader blade

& similar equipment; Oiler on dredge and on truck crane.

GROUP 4: Boat operator-outboard motor (job site); conveyor (such as con-vay-it) regardless of how used; sweeper, floor

HOURLY PREMIUMS:

Backhoe, hydraulic

2 cu. yds. or under without oiler	\$2.00
Certified Crane Operator	1.50
Certified Hazardous Material Operator	1.50
Crane, climbing (such as Linden)	.50
Crane, pile driving and extracting	.50
Crane, with boom (including jib) over	
100' (from pin to pin) add \$.01	
per foot to maximum of	4.00
Crane, using rock socket tool	.50
Derrick, diesel, gas or electric,	
hoisting material and erecting steel	
(150' or more above ground)	.50
Dragline, 7 cu. yds. and over	.50
Hoist, three (3) or more drums in use	.50
Scoop, Tandem	.50
Shovel, power - 7 cu. yds. or more	.50
Tractor, tandem crawler	.50
Tunnel, man assigned to work in tunnel	
or tunnel shaft	.50
Wrecking, when machine is working on	
second floor or higher	.50

IRON0010-012 04/01/2019

Rates

Fringes

Ironworkers:

ANDREW, BARTON, BENTON, CAMDEN, CEDAR, CHARITON, CHRISTIAN, COOPER, DADE, DALLAS, DAVIESS, DE KALB, GENTRY, GREENE, GRUNDY,

HARRISON, HICKORY, HOLT, HOWARD, LACLEDE, LINN, LIVINGSTON, MERCER, MONITEAU, MORGAN, NODAWAY, PETTIS, POLK, PUTNAM, RANDLOPH, ST. CLAIR, SULLIVAN, TANEY, VERNON, WEBSTER, WRIGHT and WORTH Counties and portions of ADAIR, BOONE, MACON, MILLER and RANDOLPH Counties.....\$ 30.55 30.44 ATCHISON, BATES, BUCHANAN, CALDWELL, CARROLL, CASS, CLAY, CLINTON, HENRY, JACKSON, JOHNSON, LAFAYETTE, PETTIS, PLATTE, SALINE, AND RAY COUNTIES....\$ 33.55 30.44 -----IRON0321-002 09/01/2019

DOUGLAS, HOWELL and OZARK COUNTIES

 Rates
 Fringes

 Ironworker......<\$ 21.10</td>
 19.01

IRON0396-004 08/07/2019

ST. LOUIS (City and County), ST. CHARLES, JEFFERSON, IRON, FRANKLIN, LINCOLN, WARREN, WASHINGTON, ST. FRANCOIS, STE. GENEVIEVE, and REYNOLDS Counties; and portions of MADISON, PERRY, BOLLINGER, WAYNE, and CARTER Counties

Rates

Fringes

Ironworker.....\$ 34.91 27.36

IRON0396-009 08/07/2019

11/2020	
AUDRAIN, CALLAWAY, COLE, CRAWFORD, DENT, GASCONADE, 1	MARIES,
MONTGOMERY, OSAGE, PHELPS, PIKE, PULASKI, TEXAS and N	WRIGHT
Counties; and portions of BOONE, CAMDEN, DOUGLAS, HO	WELL,
LACLEDE, MILLER, MONROE, OREGON, SHANNON and RALLS Co	ounties

Rates

Fringes

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Ironworker.....\$ 30.44 27.36 IRON0577-005 06/01/2019

ADAIR, CLARK, KNOX, LEWIS, MACON, MARION, MONROE, RALLS, SCHUYLER, SCOTLAND, AND SHELBY COUNTIES

BARRY, JASPER, LAWRENCE, MCDONALD, NEWTON AND STONE Counties

Rates Fringes
Ironworkers:.....\$ 26.00 15.35

IRON0782-003 05/01/2019

CAPE GIRARDEAU, MISSISSIPPI, NEW MADRID, SCOTT, & STODDARD Counties; and portions of BOLLINGER, BUTLER, CARTER, DUNKLIN, MADISON, PEMISCOT, PERRY, RIPLEY, and WAYNE Counties

Rates

Fringes

Ironworkers:

Locks, Dams, Bridges and
other major work on the
Mississippi and Ohio River

7/2020 bet			
only	.\$ 31.63	24.27	
All Other Work	.\$ 27.38	23.29	
LAB00042-003 03/06/2019			
ST. LOUIS (City and County)			
	Rates	Fringes	
LABORER			
Plumber Laborer	.\$ 33.22	15.67	
LAB00042-005 03/06/2019			
ST. LOUIS (City and County)			
	Rates	Fringes	
LABORER			
Dynamiter, Powderman	.\$ 33.22	15.67	
Laborers, Flaggers	.\$ 33.22	15.67	
Wrecking	.\$ 33.22	15.67	

LAB00424-002 05/01/2016

Rates Fringes

LABORER

ADAIR, AUDRAIN, BOONE, CALLAWAY, CHARITON, CLARK, COLE, COOPER, HOWARD, IRON, KNOX, LEWIS, LINN, MACON, MADISON, MARION, MILLER, MONITEAU, MONROE, PERRY, PIKE, PUTNAM, RALLS, RANDOLPH, REYNOLDS, ST. FRANCOIS, STE. GENEVIEVE, SCHUYLER, SCOTLAND, SHELBY AND SULLIVAN COUNTIES

GROUP 1.....\$ 27.96

13.17

GROUP 2.....\$ 27.96 13.17 BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, CRAWFORD, DENT, DUNKLIN, GASCONADE, HOWELL, MARIES, MISSISSIPPI, NEW MADRID, OREGON, OSAGE, PEMISCOT, PHELPS, PULASKI, RIPLEY, SCOTT, SHANNON, STODDARD, TEXAS, WASHINGTON AND WAYNE COUNTIES GROUP 1.....\$ 27.96 13.17 GROUP 2.....\$ 27.96 13.17 FRANKLIN COUNTY GROUP 1.....\$ 29.71 13.17 GROUP 2.....\$ 30.31 13.17 JEFFERSON COUNTY GROUP 1.....\$ 29.76 13.17 GROUP 2.....\$ 30.36 13.17 LINCOLN, MONTGOMERY AND WARREN COUNTIES GROUP 1.....\$ 31.18 13.32 GROUP 2.....\$ 31.18 13.32 ST.CHARLES COUNTY GROUP 1.....\$ 3.18 13.32

LABORERS CLASSIFICATIONS

GROUP 2.....\$ 31.18

GROUP 1 - General laborer-flagman, carpenter tenders; salamander Tenders; Dump Man; Ticket Takers; loading trucks under bins, hoppers, and conveyors; track man; cement handler; dump man on earth fill; georgie buggie man; material batch hopper man; spreader on asphalt machine; material mixer man (except on manholes); coffer dams; riprap pavers rock, block or brick; scaffolds over ten feet not self-supported from ground up; skip man on concrete paving; wire mesh setters on concrete paving; all work in connection with sewer, water, gas, gasoling, oil, drainage pipe, conduit pipe, tile and duct lines and all other pipe lines; power tool operator; all work in connection with

13.32

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hydraulic or general dredging operations; form setters, puddlers (paving only); straw blower nozzleman; asphalt plant platform man; chuck tender; crusher feeder; men handling creosote ties or creosote materials; men working with and handling epoxy material; topper of standing trees; feeder man on wood pulverizers, board and willow mat weavers and cabelee tiers on river work; deck hands; pile dike and revetment work; all laborers working on underground tunnels less than 25 ft. where compressed air is not used; abutement and pier hole men working six (6) ft. or more below ground; men working in coffer dams for bridge piers and footing in the river; barco tamper; jackson or any other similar tamp; cutting torch man; liners, curb, gutters, ditch lines; hot mastic kettlemen; hot tar applicator; hand blade operator; mortar men or brick or block manholes; rubbing concrete, air tool operator under 65 lbs.; caulker and lead man; chain or concrete saw under 15 h.p.; signal Gan; Guard rail and sign erectors.

GROUP 2 - Skilled laborers - Vibrator man; asphalt raker; head pipe layer on sewer work; batterboard man on pipe and ditch work; cliff scalers working from bosun's chairs; scaffolds or platforms on dams or power plants over 10 ft. high; air tool operator over 65 lbs.; stringline man on concrete paving; sandblast man; laser beam man; wagon drill; churn drill; air track drill and all other similar type drills, gunite nozzle man; pressure grout man; screed man on asphalt; concrete saw 15 h.p. and over; grade checker; strigline man on electronic grade control; manhole builder; dynamite man; powder man; welder; tunnel man; waterblaster - 1000 psi or over; asbestos and/or hazardous waste removal and/or disposal

LAB00579-005 05/01/2019

Rates

Fringes

LABORER (ANDREW, ATCHISON,

BUCHANAN, CALDWELL, CLINTON,

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DAVIESS, DEKALB, GENTRY,

GRUNDY, HARRISON, HOLT,

LIVINGSTON, MERCER, NODAWAY

and WORTH COUNTIES.)

GROUP 1\$ 26.66	14.97
GROUP 2\$ 27.01	14.97
LABORER (BARRY, BARTON,	
BATES, BENTON, CAMDEN,	
CARROLL, CEDAR, CHRISTIAN,	
DADE, DALLAS, DOUGLAS,	
GREENE, HENRY. HICKORY,	
JASPER, JOHNSON, LACLEDE,	
LAWRENCE, MCDONALD, MORGAN,	
NEWTON, OZARK, PETTIS, POLK,	
ST.CLAIR, SALINE, STONE,	
TANEY, VERNON, WEBSTER and	
WRIGHT COUNTIES)	
GROUP 1\$ 25.66	14.17
GROUP 2\$ 26.21	14.17

LABORER (LAFAYETTE COUNTY)

GROUP	1\$	27.21	0.0014.42
GROUP	2\$	27.56	0.0014.42

LABORERS CLASSIFICATIONS

GROUP 1: General Laborers - Carpenter tenders; salamander tenders; loading trucks under bins; hoppers & conveyors; track men & all other general laborers; air tool operator; cement handler-bulk or sack; dump man on earth fill; georgie buggie man; material batch hopper man; material mixer man (except on manholes); coffer dams; riprap pavers - rock, block or brick; signal man; scaffolds over ten feet not self-supported from ground up; skipman on concrete paving; wire mesh setters on concrete paving; all work in connection with sewer, water, gas, gasoline, oil drainage pipe, conduit pipe, tile and duct lines and all other pipe lines; power tool operator, all work in connection with hydraulic or general dredging operations; puddlers (paving only); straw blower nozzleman; asphalt plant platform man; chuck tender; crusher feeder; men handling creosote ties or creosote materials; men working with and handling epoxy

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material or materials (where special protection is required); rubbing concrete; topper of standing trees; batter board man on pipe and ditch work; feeder man on wood pulverizers; board and willow mat weavers and cable tiers on river work; deck hands; pile dike and revetment work; all laborers working on underground tunnels less than 25 feet where compressed air is not used; abutment and pier hole men working six (6) feet or more below ground; men working in coffer dams for bridge piers and footings in the river; ditchliners; pressure groutmen; caulker; chain or concrete saw; cliffscalers working from scaffolds, bosuns' chairs or platforms on dams or power plants over (10) feet above ground; mortarmen on brick or block manholes; toxic and hazardous waste work.

GROUP 2: Skilled Laborers - Head pipe layer on sewer work; laser beam man; Jackson or any other similar tamp; cutting torch man; form setters; liners and stringline men on concrete paving, curb, gutters; hot mastic kettleman; hot tar applicator; sandblasting and gunite nozzlemen; air tool operator in tunnels; screed man on asphalt machine; asphalt raker; barco tamper; churn drills; air track drills and all similar drills; vibrator man; stringline man for electronic grade control; manhole builders-brick or block; dynamite and powder men; grade checker.

LAB00663-002 04/01/2019

CASS, CLAY, JACKSON, PLATTE AND RAY COUNTIES

Rates Fringes

LABORER

GROUP 1\$ 30.73	15.98
GROUP 2\$ 31.94	15.98

LABORERS CLASSIFICATIONS

GROUP 1: General laborers, Carpenter tenders, salamander tenders, loading trucks under bins, hoppers and conveyors,

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track men and all other general laborers, air tool operator, cement handler (bulk or sack), chain or concrete saw, deck hands, dump man on earth fill, Georgie Buggies man, material batch hopper man, scale man, material mixer man (except on manholes), coffer dams, abutments and pier hole men working below ground, riprap pavers rock, black or brick, signal man, scaffolds over ten feet not self-supported from ground up, skipman on concrete paving, wire mesh setters on concrete paving, all work in connection with sewer, water, gas, gasoling, oil, drainage pipe, conduit pipe, tile and duct lines and all other pipelines, power tool operator, all work in connection with hydraulic or general dredging operations, straw blower nozzleman, asphalt plant platform man, chuck tender, crusher feeder, men handling creosote ties on creosote materials, men working with and handling epoxy material or materials (where special protection is required), topper of standing trees, batter board man on pipe and ditch work, feeder man on wood pulverizers, board and willow mat weavers and cable tiers on river work, deck hands, pile dike and revetment work, all laborers working on underground tunnels less than 25 feet where compressed air is not used, abutment and pier hole men working six (6) feet or more below ground, men working in coffer dams for bridge piers and footings in the river, ditchliners, pressure groutmen, caulker and chain or concrete saw, cliffscalers working from scaffolds, bosuns' chairs or platforms on dams or power plants over (10) feet above ground, mortarmen on brick or block manholes, signal man.

GROUP 2: Skilled Laborer - spreader or screed man on asphalt machine, asphalt raker, grade checker, vibrator man, concrete saw over 5 hp., laser beam man, barco tamper, jackson or any other similar tamp, wagon driller, churn drills, air track drills and other similar drills, cutting torch man, form setters, liners and stringline men on concrete paving, curb, gutters and etc., hot mastic kettleman, hot tar applicator, hand blade operators, mortar men on brick or block manholes, sand blasting and gunnite nozzle men, rubbing concrete, air tool operator in tunnels, head pipe layer on sewer work, manhole builder (brick or block), dynamite and powder men.

PAIN0002-002 09/01/2007

CLARK, FRANKLIN, JEFFERSON, LEWIS, LINCOLN, MARION, PIKE, RALLS, ST. CHARLES, ST. LOUIS (CITY & COUNTY), AND WARREN COUNTIES

Rates Fringes Painters: Brush and Roller; Taper....\$ 28.61 10.24 High work over 60 feet.....\$ 29.11 10.24 Lead Abatement.....\$ 29.36 10.24 Pressure Roller; High work under 60 ft.....\$ 28.86 10.24 Spray & Abrasive Blasting; Water Blasting (Over 5000 PSI).....\$ 30.61 10.24 Taper (Ames Tools & Bazooka).....\$ 30.21 10.24 -----

PAIN0002-006 04/01/2018

Painters:

ADAIR, AUDRAIN, BOONE, CALLAWAY, CHARITON, COLE, GASCONADE, HOWARD, KNOX, LINN, MACON, MONROE, MONTGOMERY, OSAGE, PUTNAM, RANDOLPH, SCHUYLER, SCOTLAND, SHELBY AND SULLIVAN COUNTIES and the City of Booneville.

Fringes

Rates

Bridges, Dams, Locks or	
Powerhouses\$ 25.93	12.79
Brush and Roll; Taping,	
Paperhanging\$ 23.93	12.79
Epoxy or Any Two Part	
Coating; Sandblasting;	

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Stage or other Aerial Work

- Platforms over 50 feet	
high; Lead Abatement\$ 24.93	12.79
Spray; Structural Steel	
(over 50 feet)\$ 24.93	12.79
Tapers using Ames or	
Comparable Tools\$ 24.68	12.79

PAIN0003-004 04/01/2017

CASS, CLAY, CLINTON, JACKSON, JOHNSON, LAFAYETTE, PLATTE & RAY COUNTIES

Rates Fringes

Painters:

Bridgeman; Lead Abatement;	
Sandblast; Storage Bin &	
Tanks\$ 31.96	16.96
Brush & Roller\$ 29.34	16.96
Drywall\$ 30.34	16.96
Paper Hanger\$ 29.84	16.96
Stageman; Beltman;	
Steelman; Elevator Shaft;	
Bazooka, Boxes and Power	
Sander; Sprayman; Dipping\$ 30.96	16.96
Steeplejack\$ 35.53	16.96

PAIN0003-011 04/01/2011

BATES, BENTON, CALDWELL, CARROLL, COOPER, DAVIESS, GRUNDY, HARRISON, HENRY, LIVINGSTON, MERCER, MONITEAU, MORGAN, PETTIS & SALINE COUNTIES

Rates

Fringes

Painters:

Bridgeman; Lead Abatement;

Sandblast; Storage Bin &

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Tanks\$ 24.06	14.04
Brush & Roller\$ 22.67	14.04
Drywall\$ 22.84	14.04
Paper Hanger\$ 23.07	14.04
Stageman; Beltman;	
Steelman; Elevator Shaft;	
Bazooka, Boxes and Power	
Sander; Sprayman; Dipping\$ 23.56	14.04
Steeplejack\$ 26.82	14.04

PAIN0203-001 04/01/2012

BARRY, BARTON, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, HOWELL, JASPER, LAWRENCE, MCDONALD, NEWTON, OZARK, POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER, and WRIGHT COUNTIES

	Rates	Fringes
Painters:		
Finisher	\$ 20.18	11.33
Painter	\$ 19.75	11.76
Sandblaster, High Man,		
Spray Man, Vinyl Hanger,		
Tool Operator	\$ 21.18	11.33

PAIN1265-003 07/01/2013

CAMDEN, CRAWFORD, DENT, LACLEDE, MARIES, MILLER, PHELPS, PULASKI AND TEXAS COUNTIES

	Rates	Fringes
Painters:		
Brush and Roller	.\$ 25.64	13.27
Floor Work	.\$ 26.14	13.27
Lead Abatement	.\$ 27.89	13.27
Spray	.\$ 27.14	13.27
Structural Steel,		

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Sandblasting and All Tank	
Work\$ 26.89	13.27
Taping, Paperhanging\$ 26.64	13.27

PAIN1292-002 09/01/2016

BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, DUNKLIN, MISSISSIPPI, NEW MADRID, OREGON, PEMISCOT, PERRY, REYNOLDS, RIPLEY, SCOTT, SHANNON, STODDARD and WAYNE COUNTIES

Rates Fringes

Painters:

Bridg	es, Stacks & Tanks\$ 30.85	11.64
Brush	& Roller\$ 25.35	11.64
Spray	& Abrasive Blasting;	
Water	blasting (over 5000	
PSI).	\$ 28.95	11.64

Height Rates (All Areas):

Over 60 ft. \$0.50 per hour.

Under 60 ft. \$0.25 per hour.

PAIN1292-003 09/01/2017

IRON, MADISON, ST. FRANCOIS, STE. GENEVIEVE and WASHINGTON COUNTIES

Rates	Fringes
Painters:	
Bridges, Stacks & Tanks\$ 31.05	12.74
Brush & Roller\$ 25.70	12.74
Spray & Abrasive Blasting;	
Waterblasting (Over 5000	
PSI)\$ 28.70	12.74

Height Rates (All Areas):

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0ver 60 ft. \$0.50 per hour

Under 60 ft. \$0.25 per hour.

PAIN2012-001 04/01/2019

ANDREW, ATCHISON, BUCHANAN, DE KALB, GENTRY, HOLT, NODAWAY & WORTH COUNTIES

	Rates	Fringes
Painters:		
Brush & Roller	\$ 31.26	17.26
Sandblaster	\$ 32.76	17.26
Steeplejack	\$ 36.33	17.26

PLAS0518-006 03/01/2019

BARRY, BARTON, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, JASPER, LACLEDE, LAWRENCE, MCDONALD, NEWTON, OZARK, POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER, AND WRIGHT COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		11.61
PLAS0518-007 04/01/2019		
CASS (Richards-Gebaur AFB only), COUNTIES	CLAY, JACKSON,	PLATTE AND RAY
	Rates	Fringes

Cement Masons:.....\$ 32.32 17.89

PLAS0518-011 04/01/2019

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ANDREW, ATCHISON, BATES, BUCHANNAN, CLINTON, DEKALB, GENTRY, HENRY, HOLT, JOHNSON, LAFAYETTE, NODAWAY & WORTH COUNTIES

Rates Fringes CEMENT MASON/CONCRETE FINISHER...\$ 32.00 20.13 -----PLAS0527-001 04/01/2018 Rates Fringes CEMENT MASON FRANKLIN, LINCOLN AND WARREN COUNTIES.....\$ 30.74 18.07 JEFFERSON, ST. CHARLES COUNTIES AND ST.LOUIS (City and County).....\$ 32.66 18.62 -----

PLAS0527-004 06/01/2017

CRAWFORD, DENT, IRON, MADISON, MARION, PHELPS, PIKE, PULASKI, RALLS, REYNOLDS, ST. FRANCOIS, STE. GENEVIEVE, SHANNON, TEXAS, WASHINGTON COUNTIES

 Rates
 Fringes

 CEMENT MASON......
 28.10
 18.07

PLAS0908-001 05/01/2017

BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, DUNKLIN, HOWELL, MISSISSIPPI, NEW MADRID, OREGON, PEMISCOT, PERRY, RIPLEY, SCOTT, STODDARD, AND WAYNE COUNTIES

	Rates	Fringes
CEMENT MASON	¢ 27.60	15.73
CEMENT MASON	.\$ 27.60	15.73

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PLAS0908-005 05/01/2017

BENTON, CALDWELL, CALLAWAY, CAMDEN, CARROLL, COLE, DAVIESS, GASCONADE, GRUNDY, HARRISON, LIVINGSTON, MACON, MARIES, MERCER, MILLER, MONTGOMERY, MORGAN, OSAGE, PETTIS & SALINE COUNTIES

Rates

Fringes

CASS, CLAY, JACKSON, JOHNSON, AND PLATTE COUNTIES

 Rates
 Fringes

 Plumbers......\$ 45.34
 21.39

PLUM0008-017 06/01/2018

BATES, BENTON, CARROLL, HENRY, LAFAYETTE, MORGAN, PETTIS, RAY, ST. CLAIR, SALINE AND VERNON COUNTIES

Rates Fringes
Plumbers.....\$ 45.34 21.39
PLUM0045-003 08/01/2019
ANDREW, ATCHISON, BUCHANAN, CALDWELL, CLINTON, DAVIESS, DEKALB,

GENTRY, HARRISON, HOLT, NODAWAY AND WORTH COUNTIES

Rates

Fringes

Plumbers and Pipefitters.....\$ 37.75 23.65

PLUM0178-003 11/01/2018

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BARRY, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, LACLEDE, LAWRENCE, POLK, STONE, TANEY, WEBSTER AND WRIGHT COUNTIES

RatesFringesPlumbers and Pipefitters......\$ 30.9015.35PLUM0178-006 11/01/2018BARTON, JASPER, MCDONALD AND NEWTON COUNTIESRatesFringesPlumbers and PipefittersFringesProjects \$750,000 & under...\$ 27.9315.35Projects over \$750,000.....\$ 30.9015.35

PLUM0533-004 06/01/2019

BATES, BENTON, CARROLL, CASS, CLAY, HENRY, HICKORY, JACKSON, JOHNSON, LAFAYETTE, MORGAN, PETTIS, PLATTE, RAY, SALINE, ST. CLAIR AND VERNON COUNTIES

	Rates	Fringes
Pipefitters	.\$ 46.68	22.55

PLUM0562-004 07/01/2019

ADAIR, AUDRAIN, BOLLINGER, BOONE, BUTLER, CALLAWAY,CAMDEN, CAPE GIRARDEAU,CARTER, CHARITON, CLARK, COLE, COOPER, CRAWFORD, DENT, DUNKLIN, FRANKLIN, GASCONADE, GRUNDY, HOWARD, HOWELL, IRON, JEFFERSON, KNOX, LEWIS, LINCOLN, LINN, LIVINGSTON, MACON, MADISON, MARIES, MARION, MERCER, MILLER, MISSISSIPPI, MONITEAU, MONROE, MONTGOMERY, NEW MADRID, OREGON, OSAGE, PEMISCOTT, PERRY, PHELPS, PIKE, PULASKI, PUTNAM, RALLS, RANDOLPH, REYNOLDS, RIPLEY, ST. CHARLES, ST.FRANCOIS, STE. GENEVIEVE, ST. LOUIS, SCHUYLER, SCOTLAND, SCOTT, SHANNON, SHELBY, STODDARD, SULLIVAN, TEXAS, WARREN, WASHINGTON, AND WAYNE COUNTIES.

	Rates	Fringes
Plumbers and Pipefitters		
Mechanical Contracts		
including all piping and		
temperature control work		
\$7.0 million & under	\$ 40.41	21.49
Mechanical Contracts		
including all piping and		
temperature control work		
over \$7.0 million	\$ 41.85	27.85

PLUM0562-016 07/01/2019

CAMDEN, COLE, CRAWFORD, FRANKLIN, JEFFERSON, MARIES, MILLER, MONITEAU, OSAGE, PHELPS, PULASKI, ST. CHARLES, ST. LOUIS (City and County), WARREN and WASHINGTON COUNTIES

Rates Fringes
Plumbers
Mechanical Contracts
including all piping and
temperature control work
\$7.0 million & under.....\$40.41 21.49
Mechanical Contracts
including all piping and

temperature control work
over \$7.0 million.....\$ 41.85 27.85

TEAM0013-001 05/01/2019

Rates

Fringes

Truck drivers (ADAIR, BUTLER,

CLARK, DUNKIN, HOWELL, KNOX,

LEWIS, OREGON, PUTNAM,

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RIPLEY, SCHUYLER AND SCOTLAND

COUNTIES)

GROUP 1\$ 30.34	13.75
GROUP 2\$ 30.49	13.75
GROUP 3\$ 30.61	13.75
GROUP 4\$ 30.50	13.75
Truck drivers (AUDRAIN,	

BOLLINGER, BOONE, CALLAWAY,

CAPE GIRARDEAU, CARTER, COLE,

CRAWFORD, DENT, GASCONADE,

IRON, MACON, MADISON, MARIES,

MARION, MILLER, MISSISSIPPI,

- MONROE, MONTGOMERY, NEW
- MADRID, OSAGE, PEMISCOT,
- PERRY, PHELPS, PIKE, PULASKI,
- RALLS, REYNOLDS, ST.
- FRANCOIS, STE. GENEVIEVE,
- SCOTT, SHANNON, SHELBY,
- STODDARD, TEXAS, WASHINGTON
- AND WAYNE COUNTIES)

GROUP	1\$	31.07	13.75
GROUP	2\$	31.22	13.75
GROUP	3\$	31.34	13.75
GROUP	4\$	31.23	13.75

- Truck drivers (FRANKLIN,
- JEFFERSON and ST. CHARLES

COUNTIES)

GROUP	1\$	33.43	13.75
GROUP	2\$	33.58	13.75
GROUP	3\$	33.65	13.75
GROUP	4\$	33.54	13.75

Truck drivers (LINCOLN and

WARREN COUNTIES)

GROUP 1\$ 32.08	13.75
GROUP 2\$ 33.23	13.75
GROUP 3\$ 32.30	13.75
GROUP 4\$ 32.19	13.75

TRUCK DRIVERS CLASSIFICATIONS:

GROUP 1: Flat Bed Trucks, Single Axle; Station Wagons;

Pickup Trucks; Material Trucks, Single Axle; Tank Wagon, Single Axle

GROUP 2: Agitator and Transit Mix Trucks

GROUP 3: Flat Bed Trucks, Tandem Axle; Articulated Dump Trucks; Material Trucks, Tandem Axle; Tank Wagon, Tandem Axle

GROUP 4: Semi and/or Pole Trailers; Winch, Fork & Steel
Trucks; Distributor Drivers and Operators; Tank Wagon,
Semi-Trailer; Insley Wagons, Dumpsters, Half-Tracks,
Speedace, Euclids and other similar equipment; A-Frame and
Derrick Trucks; Float or Low Boy

TEAM0056-001 05/01/2019

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Rates
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Fringes

13.75

13.75

13.75

13.75

Truck drivers (ANDREW, BARTON, BATES, BENTON, CALDWELL, CAMDEN, CARROLL, CEDAR, CHARITON, CHRISTIAN, CLINTON, COOPER, DADE, DALLAS, DAVIESS, DEKALB, DOUGLAS, GREENE, HENRY, HICHKORY, HOWARD, JASPER, LACLEDE, LAWRENCE, LINN, LIVINGSTON, MONITEAU, MORGAN, NEWTON, PETTIS, POLK, RANDOLPH, ST. CLAIR, SALINE, VERNON, WEBSTER AND WRIGHT COUNTIES) GROUP 1.....\$ 30.77 GROUP 2.....\$ 30.92 GROUP 3.....\$ 31.04 GROUP 4.....\$ 30.93 Truck drivers: (ATCHISON, BARRY, GENTRY, GRUNDY, HARRISON, HOLT, MCDONALD,

MERCER, NODAWAY, OZARK,

STONE, SULLIVAN, TANEY AND

WORTH COUNTIES)

GROUP 1\$	30.04	13.75
GROUP 2\$	30.19	13.75
GROUP 3\$	30.31	13.75
GROUP 4\$	30.20	13.75

Truck drivers; (BUCHANAN,

JOHNSON AND LAFAYETTE

COUNTIES)

GROUP 1\$ 31.98	13.75
GROUP 2\$ 32.13	13.75
GROUP 3\$ 32.20	13.75
GROUP 4\$ 32.09	13.75

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Flat bed trucks single axle; station wagons; pickup trucks; material trucks single axle; tank wagons single axle.

GROUP 2: Agitator and transit mix-trucks.

GROUP 3: Flat bed trucks tandem axle; articulated dump trucks; material trucks tandem axle; tank wagons tandem axle.

GROUP 4: Semi and/or pole trailers; winch, fork & steel trucks; distributor drivers & operators; tank wagons semitrailer; insley wagons, dumpsters, half-tracks, speedace, euclids & other similar equipment; A-frames and derrick trucks; float or low boy.

TEAM0245-001 03/26/2012

BARRY, BARTON, CAMDEN, CEDAR, CHRISTIAN, DALLAS, DENT, DOUGLAS, GREENE, HICKORY, HOWELL, JASPER, LACLEDE, LAWRENCE, MCDONALD, MILLER, NEWTON, OZARK, PHELPS, POLK, PULASKI, SHANNON, STONE, TANEY, TEXAS, VERNON, WEBSTER AND WRIGHT COUNTIES

Rates	Fringes

Truck drivers: Traffic Control Service Driver.....\$ 20.45 0.00 PAID HOLIDAYS: New Year's Day, Decoration Day, July 4th, Labor Day, Thanksgiving Day, Christmas Day, employee's

birthday and 2 personal days.

TEAM0541-001 04/01/2019

CASS, CLAY, JACKSON, PLATTE AND RAY COUNTIES

	Rates	Fringes
Truck drivers:		
GROUP 1	\$ 33.01	15.75
GROUP 2	\$ 32.44	15.75
GROUP 3	\$ 31.92	15.75

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Mechanics and Welders, Field; A-Frame Low Boy-Boom ruck Driver.

GROUP 2: Articulated Dump Truck; Insley Wagons: Dump Trucks, Excavating, 5 cu yds and over; Dumpsters; Half-Tracks: Speedace: Euclids & similar excavating equipment Material trucks, Tandem Two teams; Semi-Trailers; Winch trucks-Fork trucks; Distributor Drivers and Operators; Agitator and Transit Mix; Tank Wagon Drivers, Tandem or Semi; One Team; Station Wagons; Pickup Trucks; Material Trucks, Single Axle; Tank Wagon Drivers, Single Axle

GROUP 3: Oilers and Greasers - Field

TEAM0682-002 05/01/2017

ST LOUIS CITY AND COUNTY

Rates Fr	inges
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Truck drivers:

GROUP 1\$ 33.30	13.79+a+b+c+d
GROUP 2\$ 33.50	13.79+a+b+c+d
GROUP 3\$ 33.60	13.79+a+b+c+d

a. PENSION: 5/1/2012 - \$182.20 per week.

b. HAZMAT PREMIUM: If Hazmat certification on a job site is required by a state or federal agency or requested by project owner or by the employer, employees on that job site shall receive \$1.50 premium pay.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Pick-up trucks; forklift, single axle; flatbed trucks; job site ambulance, and trucks or trailers of a water level capacity of 11.99 cu. yds. or less

GROUP 2 - Trucks or trailers of a water level capacity of 12.0 cu yds. up to 22.0 cu yds. including euclids, speedace and similar equipment of same capacity and compressors

GROUP 3 - Trucks or trailers of a water level capacity of 22.0 cu. yds & over including euclids, speedace & all floats, flatbed trailers, boom trucks, winch trucks, including small trailers, farm wagons tilt-top trailers, field offices, tool trailers, concrete pumps, concrete conveyors & gasoline tank trailers and truck mounted mobile concrete mixers

FOOTNOTE FOR TRUCK DRIVERS:

c. PAID HOLIDAYS: Christmas Day, Independence Day, LaborDay, Memorial Day, Veterans Day, New Years Day,Thanksgiving Day

beta.SAM.gov

d. PAID VACATION: 3 days paid vacation for 600 hours of service in any one contract year; 4 days paid vacation for 800 hours of service in any one contract year; 5 days paid vacation for 1,000 hours of service in any one contract year. When such an employee has completed 3 years of continuous employment with the same employer and then works the above required number of hours, he shall receive double the number of days of vacation specified above. When such an employee has completed 10 years of continuous employment with the same employer and then works the above required number of hours, he shall receive triple the number of days of vacation specified above. When such an employee has completed 15 years of continuous employment with the same employer and then works the above required number of hours, he shall receive 4 times the number of days of vacation specified above.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can

be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage DeterminationsWage and Hour DivisionU.S. Department of Labor200 Constitution Avenue, N.W.Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

...

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION