AGREEMENT

BETWEEN

CITY OF YAKIMA, WASHINGTON

AND

HALEY & ALDRICH, INC AND HALEY & ADRICH CONSTRUCTION SERVICES, INC.

FOR PROFESSIONAL SERVICES

THIS AGREEMENT, made and entered into on this 14th day of November, 2022, by and between the City of Yakima, Washington, a municipal corporation with its principal office at 129 North Second Street, Yakima, WA 98901, (hereinafter referred to as "CITY"), and Haley & Aldrich, Inc. with its principal office at 3131 Elliott Avenue, Ste 600, Seattle, WA 98121, and its wholly owned subsidiary, Haley & Aldrich Construction Services, Inc. (hereinafter referred to as "ENGINEER"); said corporations being licensed and registered to do business in the State of Washington, and will provide environmental engineering and remediation services under this Agreement for Remedial Action and Long Term Monitoring Plan 2312 W Nob Hill Blvd (Tiger Oil) Site Cleanup on behalf of the City of Yakima, Project No. EV2999, herein referred to as the "PROJECT."

WITNESSETH:

RECITALS

WHEREAS, CITY desires to retain the ENGINEER to provide engineering services for design and construction of the PROJECT, as described in this Agreement and subsequent Amendments thereto; and

WHEREAS, ENGINEER represents that it is available and offers to provide personnel with knowledge and experience necessary to satisfactorily accomplish the work within the required time and that it has no conflicts of interest prohibited by law from entering into this Agreement;

NOW, THEREFORE, CITY and ENGINEER agree as follows:

SECTION 1 INCORPORATION OF RECITALS

1.1 The above recitals are incorporated into these operative provisions of the Agreement.

SECTION 2 SCOPE OF SERVICES

- 2.0.1 ENGINEER agrees to perform those services described hereafter. Unless modified in writing by both parties, duties of ENGINEER shall not be construed to exceed those services specifically set forth herein.
- 2.0.2 ENGINEER shall use its best efforts to maintain continuity in personnel and shall assign, Julie Wukelic as Principal-in-Charge throughout the term of this Agreement unless other personnel are approved by the CITY.
- 2.1 <u>Basic Services</u>: ENGINEER agrees to perform those tasks described in Exhibit A, entitled "Proposal and Scope of Work for Task 1 Sub-Slab Depressurization System (SSDS) Pilot Testing and Design" dated 5 October 2022 (WORK) which is attached hereto and made a part of this Agreement as if fully set forth herein.
- 2.2 <u>Additional Services</u>: CITY and ENGINEER agree that not all WORK to be performed by ENGINEER can be defined in detail at the time this Agreement is executed, and that additional WORK related to the Project and not covered in Exhibit A may be needed during performance of this Agreement. CITY may, at any time, by written order, direct the ENGINEER to revise portions of the PROJECT WORK previously completed in a satisfactory manner, delete portions of the

PROJECT, or request that the ENGINEER perform additional WORK beyond the scope of the PROJECT WORK. Such changes hereinafter shall be referred to as "Additional Services."

- 2.2.1 If such Additional Services cause an increase or decrease in the ENGINEER'S cost of, or time required for, performance of any services under this Agreement, a mutually agreed upon contract price and/or completion time adjustment pursuant to this Agreement shall be made and this Agreement shall be modified in writing and accepted by the parties hereto.
- 2.2.2 Compensation for each such request for Additional Services shall be negotiated by the CITY and the ENGINEER according to the provisions set forth in Exhibit A, attached hereto and incorporated herein by this reference, and if so authorized, shall be considered part of the PROJECT WORK. The ENGINEER shall not perform any Additional Services until so authorized by CITY and agreed to by the ENGINEER in writing.
- 2.3 The ENGINEER must assert any claim for adjustment in writing within thirty (30) days from the date of the ENGINEER's receipt of the written notification of change.

SECTION 3 TERM

31. The term for this AGREEMENT shall be from the date of signature of both parties through December 31, 2023.

SECTION 4 CITY'S RESPONSIBILITIES

- 4.1 CITY-FURNISHED DATA: The CITY will provide to the ENGINEER all technical data in the CITY'S possession relating to the ENGINEER'S services on the PROJECT including information on any pre-existing conditions known to the CITY that constitute hazardous waste contamination on the PROJECT site as determined by an authorized regulatory agency.
- 4.2 ACCESS TO FACILITIES AND PROPERTY: The CITY will make its facilities reasonably accessible to ENGINEER as required for ENGINEER'S performance of its services and will provide labor and safety equipment as reasonably required by ENGINEER for such access.
- 4.3 TIMELY REVIEW: The CITY will examine the ENGINEER'S studies, reports, sketches, drawings, specifications, proposals, and other documents; obtain advice of an attorney, insurance counselor, accountant, auditor, bond and financial advisors, and other consultants as CITY deems appropriate; and render in writing decisions required of CITY in a timely manner. Such examinations and decisions, however, shall not relieve the ENGINEER of any contractual obligations nor of its duty to render professional services meeting the standards of care applicable to its profession.
- 4.4 CITY shall appoint a CITY'S Representative with respect to WORK to be performed under this Agreement. CITY'S Representative shall have complete authority to transmit instructions and receive information. ENGINEER shall be entitled to reasonably rely on such instructions made by the CITY'S Representative unless otherwise directed in writing by the CITY, but ENGINEER shall be responsible for bringing to the attention of the CITY'S Representative any instructions which the ENGINEER believes are inadequate, incomplete, or inaccurate based upon the ENGINEER'S knowledge.
- 4.5 Any documents, services, and reports provided by the CITY to the ENGINEER are available solely as additional information to the ENGINEER and will not relieve the ENGINEER of its professional duties and obligations under this Agreement or at law. The ENGINEER shall be entitled to reasonably rely upon the accuracy and the completeness of such documents, services and reports, but shall be responsible for exercising customary professional care in using and reviewing such documents, services, and reports and drawing conclusions from them.

SECTION 5 AUTHORIZATION, PROGRESS, AND COMPLETION

5.1 In signing this AGREEMENT, CITY and ENGINEER agree that at such time as the CITY provides ENGINEER specific written authorization to proceed with one or more of the tasks described in EXHIBIT A, ENGINEER shall begin work. The time for completion of each task shall be as mutually agreed.

SECTION 6 COMPENSATION

- 6.1 COMPENSATION ON A TIME SPENT BASIS AT SPECIFIC HOURLY RATES: For the services described in Exhibit A, compensation shall be according to Exhibit A <u>Standard Fee Schedule 2022</u> <u>PNW</u>, attached hereto and incorporated herein by this reference, on a time spent basis plus reimbursement for direct non-salary expenses.
 - 6.1.1 DIRECT NON-SALARY EXPENSES: Direct Non-Salary Expenses are those costs incurred on or directly for the PROJECT including, but not limited to, necessary transportation costs, including current rates for ENGINEER'S vehicles; meals and lodging; laboratory tests and analyses; printing, binding and reproduction charges; all costs associated with other outside nonprofessional services and facilities; special CITY-requested and PROJECT-related insurance and performance warranty costs; and other similar costs. Reimbursement for Direct Non-Salary Expenses will be on the basis of actual charges plus a reasonable markup, not to exceed ten percent (10%), and on the basis of current rates when furnished by ENGINEER. Estimated Direct Non-Salary Expenses are shown in Exhibit A.
 - 6.1.1.1 Travel costs, including transportation, lodging, subsistence, and incidental expenses incurred by employees of the ENGINEER and each of the Subconsultants in connection with PROJECT WORK; provided, as follows:
 - That a maximum of U.S. INTERNAL REVENUE SERVICE allowed cents per mile will be paid for the operation, maintenance, and depreciation costs of company or individually owned vehicles for that portion of time they are used for PROJECT WORK. ENGINEER, whenever possible, will use the least expensive form of ground transportation.
 - That reimbursement for meals inclusive of tips shall not exceed a maximum of forty dollars (\$40) per day per person. This rate may be adjusted on a yearly basis.
 - That accommodation shall be at a reasonably priced hotel/motel.
 - That air travel shall be by coach class, and shall be used only when absolutely necessary.
 - 6.1.2 Telephone charges, computer charges, in-house reproduction charges, first class postage, and FAX charges are not included in the direct expense costs, but are considered included in the Schedule of Specific Hourly Billing Rates.
 - 6.1.3 Professional Subconsultants. Professional Subconsultants are those costs for engineering, architecture, geotechnical services and similar professional services approved by the CITY. Reimbursement for Professional Subconsultants will be on the basis of actual costs billed plus a reasonable markup, not to exceed ten percent (10%) for services provided to the CITY through this Agreement. Estimated Subconsultant costs are shown in Exhibit A.
- 6.2 Unless specifically authorized in writing by the CITY, the total budgetary amount for this PROJECT shall not exceed One Hundred Fifty Thousand Fifty-Seven Dollars (\$150,057). The ENGINEER shall make all reasonable efforts to complete the WORK within the budget and will keep CITY informed of progress toward that end so that the budget or WORK effort can be adjusted if found necessary. The ENGINEER is not obligated to incur costs beyond the indicated budget, as may be adjusted, nor is the CITY obligated to pay the ENGINEER beyond these limits. When any budget has been increased, the ENGINEER'S excess costs expended prior to such increase will be allowable to the same extent as if such costs had been incurred after the approved increase, and provided that the City was informed in writing at the time such costs were incurred.
- 6.3 The ENGINEER shall submit to the City's Representative an invoice each month for payment for PROJECT services completed through the accounting cut-off day of the previous month. Such

invoices shall be for PROJECT services and WORK performed and costs incurred prior to the date of the invoice and not covered by previously submitted invoices. The ENGINEER shall submit with each invoice a summary of time expended on the PROJECT for the current billing period, copies of subconsultant invoices, and any other supporting materials and details determined necessary by the City to substantiate the costs incurred. CITY will use its best efforts to pay such invoices within thirty (30) days of receipt and upon approval of the WORK done and amount billed. CITY will notify the ENGINEER promptly if any problems are noted with the invoice. CITY may question any item in an invoice, noting to ENGINEER the questionable item(s) and withholding payment for such item(s). The ENGINEER may resubmit such item(s) in a subsequent invoice together with additional supporting information requested.

- 6.4 If payment is not made within sixty (60) days following receipt of approved invoices, interest on the unpaid balance shall accrue beginning with the sixty-first (61st) day at the rate of 1.0% per month or the maximum interest rate permitted by law, whichever is less; provided, however, that no interest shall accrue pursuant to Chapter 39.76 RCW when before the date of timely payment a notice of dispute is issued in good faith by the CITY to the ENGINEER pursuant to the terms of RCW 39.76.020(4).
- 6.5 Final payment of any balance due the ENGINEER for PROJECT services will be made within forty-five (45) days after satisfactory completion of the services required by this Agreement as evidenced by CITY's written acceptance and after such audit or verification as CITY may deem necessary, together with ENGINEER's execution and delivery of a release of all known payment claims against CITY arising under or by virtue of this Agreement, other than such payment claims, if any, as may be specifically exempted by the ENGINEER from the operation of the release in stated amounts to be set forth therein.
- 6.6 Payment for any PROJECT services and WORK shall not constitute a waiver or release by CITY of any claims, right, or remedy it may have against the ENGINEER under this Agreement or by law, nor shall such payment constitute a waiver, remission, or discharge by CITY of any failure or fault of the ENGINEER to satisfactorily perform the PROJECT WORK as required under this Agreement.

SECTION 7 RESPONSIBILITY OF ENGINEER

- 7.1 The ENGINEER shall be responsible for the professional quality, technical adequacy and accuracy, timely completion, and the coordination of all plans, designs, drawings, specifications, reports, and other services furnished by the ENGINEER under this Agreement. The ENGINEER shall, without additional compensation, correct or review any errors, omissions, or other deficiencies in its plans, designs, drawings, specifications, reports, and other services. The ENGINEER shall perform its WORK according to generally accepted civil engineering standards of care and consistent with achieving the PROJECT WORK within budget, on time, and in compliance with applicable laws, regulations, and permits.
- 7.2 CITY'S review or approval of, or payment for, any plans, drawings, designs, specifications, reports, and incidental WORK or services furnished hereunder shall not in any way relieve the ENGINEER of responsibility for the technical adequacy, completeness, or accuracy of its WORK and the PROJECT WORK. CITY'S review, approval, or payment for any of the services shall not be construed to operate as a waiver of any rights under this Agreement or at law or any cause of action arising out of the performance of this Agreement.
- 7.3 In performing WORK and services hereunder, the ENGINEER and its subcontractors, subconsultants, employees, agents, and representatives shall be acting as independent contractors and shall not be deemed or construed to be employees or agents of CITY in any manner whatsoever. The ENGINEER shall not hold itself out as, nor claim to be, an officer or employee of CITY by reason hereof and shall not make any claim, demand, or application to or for any right or privilege applicable to an officer or employee of CITY. The ENGINEER shall be solely responsible for any claims for wages or compensation by ENGINEER's employees, agents, and representatives, including subconsultants and subcontractors, and shall save and hold CITY harmless therefrom.

7.4 INDEMNIFICATION AND HOLD HARMLESS:

- 7.4.1 ENGINEER shall take all necessary precautions in performing the WORK to prevent injury to persons or property. The ENGINEER agrees to release, indemnify, defend, and hold harmless the City, its elected and appointed officials, officers, employees, agents, representatives, insurers, attorneys, and volunteers from all liabilities, losses, damages, and expenses related to all claims, suits, arbitration actions, investigations, and regulatory or other governmental proceedings arising from or in connection with this Agreement or the acts, failures to act, errors or omissions of the ENGINEER, or any of ENGINEER's agent(s) or subcontractor(s), in performance of this Agreement, except for claims caused by the City's sole negligence. The City's right to indemnification includes attorney's fees and costs associated with establishing the right to indemnification hereunder in favor of the City.
- 7.4.2 Industrial Insurance Act Waiver. It is specifically and expressly understood that the ENGINEER waives any immunity that may be granted to it under the Washington State industrial insurance act, Title 51 RCW, solely for the purposes of this indemnification. ENGINEER's indemnification shall not be limited in any way by any limitation on the amount of damages, compensation or benefits payable to or by any third party under workers' compensation acts, disability benefit acts or any other benefits acts or programs. ENGINEER shall require that its subcontractors, and anyone directly or indirectly employed or hired by ENGINEER, and anyone for whose acts ENGINEER may be liable in connection with its performance of this Agreement, comply with the terms of this paragraph, waive any immunity granted under Title 51 RCW, and assume all potential liability for actions brought by their respective employees. The Parties acknowledge that they have mutually negotiated this waiver.
- 7.4.3 Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the ENGINEER and the City, the ENGINEER's liability, including the duty and cost to defend, shall be only to the extent of the ENGINEER's negligence.
- 7.4.4 Nothing contained in this Section or this Agreement shall be construed to create a liability or a right of indemnification in any third party.
- 7.4.5 The terms of this Section shall survive any expiration or termination of this Agreement.
- 7.5 In any and all claims by an employee of the ENGINEER, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligations under this Agreement shall not be limited in any way by any limitation on the amount or types of damages, compensation, or benefits payable by or for the ENGINEER or a subcontractor under workers' or workmens' compensation acts, disability benefit acts, or other employee benefit acts. The ENGINEER specifically and expressly waives its immunity under the Industrial Insurance Act, Title 51, RCW. Such waiver has been mutually negotiated by the ENGINEER and the CITY.
- 7.6 It is understood that any resident engineering or inspection provided by ENGINEER is for the purpose of determining compliance with the technical provisions of PROJECT specifications and does not constitute any form of guarantee or insurance with respect to the performance of a contractor. ENGINEER does not assume responsibility for methods or appliances used by a contractor, for a contractor's safety programs or methods, or for contractors' compliance with laws and regulations. CITY shall use its best efforts to ensure that the construction contract requires that the contractor(s) indemnify and name CITY, the CITY's and the ENGINEER's officers, principals, employees, agents, representatives, and engineers as additional insureds on contractor's insurance policies covering PROJECT, exclusive of insurance for ENGINEER professional liability.
- 7.7 ENGINEER shall be solely responsible for and shall pay all taxes, deductions, and assessments, including but not limited to federal income tax, FICA, social security tax, assessments for unemployment and industrial injury insurance, and other deductions from income which may be required by law or assessed against either party as a result of this Agreement. In the event the City is assessed a tax or assessment as a result of this Agreement, ENGINEER shall pay the same before it becomes due.

7.8 SUBSURFACE INVESTIGATIONS: In soils, foundation, groundwater, and other subsurface investigations, the actual characteristics may vary significantly between successive test points and sample intervals and at locations other than where observation, exploration, and investigations have been made. Because of the inherent uncertainties in subsurface evaluations, changed or unanticipated underground conditions may occur that could affect total PROJECT cost and/or execution. These conditions and cost/execution effects are not the responsibility of the ENGINEER, to the extent that ENGINEER has exercised the applicable and appropriate standard of professional care, thoroughness and judgment in performing such investigations.

SECTION 8 PROJECT SCHEDULE AND BUDGET

- 8.1 The general PROJECT schedule and the budget for both the entire PROJECT and its component tasks shall be as set forth in this Agreement and attached Exhibits. The project schedule and performance dates for the individual tasks shall be mutually agreed to by the CITY and the ENGINEER within fifteen (15) days after execution of this Agreement. The performance dates and budgets for tasks may be modified only upon written agreement of the parties hereto. The performance date for tasks and the completion date for the entire PROJECT shall not be extended, nor the budget increased because of any unwarranted delays attributable to the ENGINEER, but may be extended or increased by the CITY in the event of a delay caused by special services requested by the CITY or because of unavoidable delay caused by any governmental action or other conditions beyond the control of the ENGINEER which could not be reasonably anticipated or avoided.
- 8.2 Not later than the tenth (10th) day of each calendar month during the performance of the PROJECT, the ENGINEER shall submit to the CITY's Representative a copy of the current schedule and a written narrative description of the WORK accomplished by the ENGINEER and subconsultants on each task, indicating a good faith estimate of the percentage completion thereof on the last day of the previous month. Additional oral or written reports shall be prepared at the CITY's request for presentation to other governmental agencies and/or to the public.

SECTION 9 REUSE OF DOCUMENTS

- 9.1 All internal WORK products of the ENGINEER are instruments or services of this PROJECT. There shall be no reuse, change, or alteration by the CITY or others acting through or on behalf of the CITY without written permission of the ENGINEER, which shall not be unreasonably withheld and will be at the CITY's sole risk. The CITY agrees to indemnify the ENGINEER and its officers, employees, subcontractors, and affiliated corporations from all claims, damages, losses, and costs including, but not limited to, litigation expenses and attorney's fees arising out of or related to such unauthorized reuse, change, or alteration; provided, however, that the ENGINEER will not be indemnified for such claims, damages, losses, and costs including, without limitation, litigation expenses and attorney fees if they were caused by the ENGINEER's own negligent acts or omissions.
- 9.2 The ENGINEER agrees that any and all plans, drawings, designs, specifications, computer programs, technical reports, operating manuals, calculations, notes, and other WORK submitted or which are specified to be delivered under this Agreement or which are developed or produced and paid for under this Agreement, whether or not complete, shall be owned by and vested in the CITY.
- 9.3 All rights to patents, trademarks, copyrights, and trade secrets owned by ENGINEER (hereinafter "Intellectual Property") as well as any modifications, updates or enhancements to said Intellectual Property during the performance of the WORK remain the property of ENGINEER, and ENGINEER does not grant CITY any right or license to such Intellectual Property.

SECTION 10 AUDIT AND ACCESS TO RECORDS

10.1 The ENGINEER, including its subconsultants, shall maintain books, records, documents and other evidence directly pertinent to performance of the WORK under this Agreement in accordance with generally accepted accounting principles and practices consistently applied. The CITY, or the CITY's duly authorized representative, shall have access to such books, records, documents, and other evidence for inspection, audit, and copying for a period of three years after completion of the

PROJECT. The CITY shall also have access to such books, records, and documents during the performance of the PROJECT WORK, if deemed necessary by the CITY, to verify the ENGINEER's WORK and invoices.

- 10.2 Audits conducted pursuant to this section shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or auditing agency.
- 10.3 The ENGINEER agrees to the disclosure of all information and reports resulting from access to records pursuant to this section provided that the ENGINEER is afforded the opportunity for an audit exit conference and an opportunity to comment and submit any supporting documentation on the pertinent portions of the draft audit report and that the final audit report will include ENGINEER's written comments, if any.
- 10.4 The ENGINEER shall ensure that the foregoing paragraphs are included in each subcontract for WORK on the Project.
- 10.5 Any charges of the ENGINEER paid by the CITY which are found by an audit to be inadequately substantiated shall be reimbursed to the CITY.

SECTION 11 INSURANCE

- 11.1 At all times during performance of the WORK or obligations under this Agreement, ENGINEER shall secure and maintain in effect insurance to protect the CITY and the ENGINEER from and against all claims, damages, losses, and expenses arising out of or resulting from the performance of this Agreement. ENGINEER shall provide and maintain in force insurance in limits no less than those stated below, as applicable. The CITY reserves the right to require higher limits should it deem it necessary in the best interest of the public. If ENGINEER carries higher coverage limits than the limits stated below, such higher limits shall be shown on the Certificate of Insurance and Endorsements and ENGINEER shall be named as an additional insured for such higher limits. Failure by the City to demand such verification of coverage with these insurance requirements or failure of the City to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of ENGINEER's obligation to maintain such insurance. ENGINEER's insurance coverage shall be primary insurance with respect to those who are Additional Insureds under this Agreement. Any insurance, self-insurance or insurance pool coverage maintained by the City shall be in excess of the ENGINEER's insurance and neither the City nor its insurance providers shall contribute to any settlements, defense costs, or other payments made by ENGINEER's insurance.
 - 11.1.1 **Commercial General Liability Insurance.** Before this Agreement is fully executed by the parties, ENGINEER shall provide the CITY with a certificate of insurance as proof of commercial liability insurance and commercial umbrella liability insurance with a total liability limit of the limits required in the policy, subject to minimum limits of Two Million Dollars (\$2,000,000.00) per occurrence combined single limit bodily injury and property damage, and Two Million Dollars (\$2,000,000.00) general aggregate. The certificate shall clearly state who the provider is, the coverage amount, the policy number, and when the policy and provisions provided are in effect. Said policy shall be in effect for the duration of this Agreement. The policy shall name the CITY, its elected and appointed officials, officers, agents, employees, and volunteers as additional insureds. The insured shall not cancel or change the insurance without first giving the CITY thirty (30) calendar days prior written notice. The insurance shall be with an insurance company or companies rated A-VII or higher in Best's Guide and admitted in the State of Washington.

11.1.2. Commercial Automobile Liability Insurance.

a. If ENGINEER owns any vehicles, before this Agreement is fully executed by the parties, ENGINEER shall provide the CITY with a certificate of insurance as proof of commercial automobile liability insurance and commercial umbrella liability insurance with a total liability limit of the limits required in the policy, subject to minimum limits of Two Million Dollars (\$2,000,000.00) per occurrence combined single limit bodily injury and property damage. Automobile liability will apply to "Any Auto" and be shown on the certificate.

b. If ENGINEER does not own any vehicles, only "Non-owned and Hired Automobile Liability" will be required and may be added to the commercial liability coverage at the same limits as required in that section of this Agreement, which is Section 10.1.1 entitled "Commercial General Liability Insurance".

c. Under either situation described above in Section 10.1.2.a. and Section 10.1.2.b., the required certificate of insurance shall clearly state who the provider is, the coverage amount, the policy number, and when the policy and provisions provided are in effect. Said policy shall be in effect for the duration of this Agreement. The policy shall name the CITY, its elected and appointed officials, officers, agents, employees, and volunteers as additional insureds. The insured shall not cancel or change the insurance without first giving the CITY thirty (30) calendar days prior written notice. The insurance shall be with an insurance company or companies rated A-VII or higher in Best's Guide and admitted in the State of Washington.

- 11.1.3. Statutory workers' compensation and employer's liability insurance as required by state law.
- 11.1.4. **Professional Liability Coverage.** Before this Contract is fully executed by the parties, ENGINEER shall provide the City with a certificate of insurance as proof of professional liability coverage with a total liability limit of the limits required in the policy, subject to minimum limits of Two Million Dollars (\$2,000,000.00) per claim, and Two Million Dollars (\$2,000,000.00) aggregate. The certificate shall clearly state who the provider is, the coverage amount, the policy number, and when the policy and provisions provided are in effect. Said policy shall be in effect for the duration of this Contract. The insured shall not cancel or change the insurance without first giving the CITY thirty (30) calendar days prior written notice. The insurance shall be with an insurance company or companies rated A-VII or higher in Best's Guide. If the policy is written on a claims made basis the coverage will continue in force for an additional two years after the completion of this contract.

Failure of either or all of the additional insureds to report a claim under such insurance shall not prejudice the rights of the CITY, its elected and appointed officials, officers, employees, agents, and representatives there under. The CITY and the CITY's elected and appointed officials, officers, principals, employees, representatives, and agents shall have no obligation for payment of premiums because of being named as additional insureds under such insurance. None of the policies issued pursuant to the requirements contained herein shall be canceled, allowed to expire, or changed in any manner that affects the rights of the CITY until thirty (30) days after written notice to the CITY of such intended cancellation, expiration or change.

11.2 If at any time during the life of the Agreement, or any extension, ENGINEER fails to maintain the required insurance in full force and effect, all work under the Agreement shall be discontinued immediately. Any failure to maintain the required insurance may be sufficient cause for the City to terminate the Agreement.

SECTION 12 SUBCONTRACTS

- 12.1 ENGINEER shall be entitled, to the extent determined appropriate by ENGINEER, to subcontract any portion of the WORK to be performed under this Agreement. However, ENGINEER shall be considered the Prime Contractor hereunder and shall be the sole point of contact with regard to all contractual matters arising hereunder, including the performance of WORK and payment of any and all charges resulting from contractual obligations.
- 12.2 Any subconsultants or subcontractors to the ENGINEER utilized on this PROJECT, including any substitutions thereof, will be subject to prior approval by CITY, which approval shall not be unreasonably withheld. Each subcontract shall be subject to review by the CITY's Representative, if requested, prior to the subconsultant or subcontractor proceeding with the WORK. Such review shall not constitute an approval as to the legal form or content of such subcontract. The ENGINEER

shall be responsible for the architectural and engineering performance, acts, and omissions of all persons and firms performing subcontract WORK.

- 12.3 The CITY anticipates that the ENGINEER will require subcontractors to perform the following work including but not limited to: Traffic Control, drilling, and testing.
- 12.4 The ENGINEER shall submit, along with its monthly invoices, a description of all WORK completed by subconsultants and subcontractors during the preceding month and copies of all invoices thereto.
- 12.5 If dissatisfied with the background, performance, and/or general methodologies of any subcontractor, the City may request in writing that the subcontractor be removed. The ENGINEER shall comply with this request at once and shall not employ the subcontractor for any further WORK under this Agreement.

SECTION 13 ASSIGNMENT

13.1 This Agreement is binding on the heirs, successors and assigns of the parties hereto. This Agreement may not be assigned by CITY or ENGINEER without prior written consent of the other, which consent will not be unreasonably withheld. The ENGINEER for itself and its heirs, executors, administrators, successors and assigns, does hereby agree to the full performance of all of the covenants herein contained upon the part of the ENGINEER. It is expressly intended and agreed that no third party beneficiaries are created by this Agreement, and that the rights and remedies provided herein shall inure only to the benefit of the parties to this Agreement.

SECTION 14 INTEGRATION

14.1 This Agreement represents the entire understanding of CITY and ENGINEER as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered herein. This Agreement may not be modified or altered except in writing signed by both parties.

SECTION 15 JURISDICTION AND VENUE

15.1 This Agreement shall be administered and interpreted under the laws of the State of Washington. Jurisdiction of litigation arising from this Agreement shall be in Washington State. If any part of this Agreement is found to conflict with applicable laws, such part shall be inoperative, null, and void insofar as it conflicts with said laws, but the remainder of this Agreement shall be in full force and effect. Venue for all disputes arising under this Agreement shall lie in a court of competent jurisdiction in Yakima County, Washington.

SECTION 16 EQUAL EMPLOYMENT and NONDISCRIMINATION

16.1 During the performance of this Agreement, ENGINEER and ENGINEER's subconsultants and subcontractors shall not discriminate in violation of any applicable federal, state and/or local law or regulation on the basis of age, sex, race, creed, religion, color, national origin, marital status, disability, honorably discharged veteran or military status, pregnancy, sexual orientation, and any other classification protected under federal, state, or local law. This provision shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, selection for training, and the provisions of State and Federal Equal Employment Opportunity and Nondiscrimination statutes and regulations.

SECTION 17 SUSPENSION OF WORK

17.1 CITY may suspend, in writing by certified mail, all or a portion of the WORK under this Agreement if unforeseen circumstances beyond CITY's control are interfering with normal progress of the WORK. ENGINEER may suspend, in writing by certified mail, all or a portion of the WORK under this Agreement if unforeseen circumstances beyond ENGINEER's control are interfering with normal progress of the WORK. ENGINEER may suspend WORK on the PROJECT in the event CITY does not pay invoices when due, except where otherwise provided by this Agreement. The time for completion of the WORK shall be extended by the number of days WORK is suspended. If the period of suspension exceeds ninety (90) days, the terms of this Agreement are subject to renegotiation, and both parties are granted the option to terminate WORK on the suspended portion of Project in accordance with SECTION 17.

SECTION 18 TERMINATION OF WORK

- 18.1 Either party may terminate this Agreement, in whole or in part, if the other party materially breaches its obligations under this Agreement and is in default through no fault of the terminating party. However, no such termination may be effected unless the other party is given: (1) not less than fifteen (15) calendar days written notice delivered by certified mail, return receipt requested, of intent to terminate; and (2) an opportunity for consultation and for cure with the terminating party before termination. Notice shall be considered issued within seventy-two (72) hours of mailing by certified mail to the place of business of either party as set forth in this Agreement.
- 18.2 In addition to termination under subsection 17.1 of this Section, CITY may terminate this Agreement for its convenience, in whole or in part, provided the ENGINEER is given: (1) not less than fifteen (15) calendar days written notice delivered by certified mail, return receipt requested, of intent to terminate; and (2) an opportunity for consultation with CITY before the effective termination date.
- 18.3 If CITY terminates for default on the part of the ENGINEER, an adjustment in the contract price pursuant to the Agreement shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other WORK, and (2) any payment due to the ENGINEER at the time of termination may be adjusted to the extent of any additional costs or damages CITY has incurred, or is likely to incur, because of the ENGINEER'S breach. In such event, CITY shall consider the amount of WORK originally required which was satisfactorily completed to date of termination, whether that WORK is in a form or of a type which is usable and suitable to CITY at the date of termination and the cost to CITY of completing the WORK itself or of employing another firm to complete it. Under no circumstances shall payments made under this provision exceed the contract price. In the event of default, the ENGINEER agrees to pay CITY for any and all damages, costs, and expenses whether directly, indirectly, or consequentially caused by said default. This provision shall not preclude CITY from filing claims and/or commencing litigation to secure compensation for damages incurred beyond that covered by contract retainage or other withheld payments.
- 18.4 If the ENGINEER terminates for default on the part of CITY or if CITY terminates for convenience, the adjustment pursuant to the Agreement shall include payment for services satisfactorily performed to the date of termination, in addition to termination settlement costs the ENGINEER reasonably incurs relating to commitments which had become firm before the termination, unless CITY determines to assume said commitments.
- 18.5 Upon receipt of a termination notice under subsections 18.1 or 18.2 above, the ENGINEER shall (1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) deliver or otherwise make available to CITY all originals of data, drawings, specifications, calculations, reports, estimates, summaries, and such other information, documents, and materials as the ENGINEER or its subconsultants may have accumulated or prepared in performing this Agreement, whether completed or in progress, with the ENGINEER retaining copies of the same.
- 18.6 Upon termination under any subparagraph above, CITY reserves the right to prosecute the WORK to completion utilizing other qualified firms or individuals; provided, the ENGINEER shall have no responsibility to prosecute further WORK thereon.
- 18.7 If, after termination for failure of the ENGINEER to fulfill contractual obligations, it is determined that the ENGINEER has not so failed, the termination shall be deemed to have been effected for the convenience of CITY. In such event, the adjustment pursuant to the Agreement shall be determined as set forth in subparagraph 18.4 of this Section.
- 18.8 If, because of death, unavailability or any other occurrence, it becomes impossible for any key personnel employed by the ENGINEER in PROJECT WORK or for any corporate officer of the

ENGINEER to render his services to the PROJECT, the ENGINEER shall not be relieved of its obligations to complete performance under this Agreement without the concurrence and written approval of CITY. If CITY agrees to termination of this Agreement under this provision, payment shall be made as set forth in subparagraph 18.3 of this Section.

SECTION 19 DISPUTE RESOLUTION

19.1 In the event that any dispute shall arise as to the interpretation or performance of this Agreement, or in the event of a notice of default as to whether such default does constitute a breach of the contract, and if the parties hereto cannot mutually settle such differences, then the parties shall first pursue mediation as a means to resolve the dispute. If neither of the afore mentioned methods are successful then any dispute relating to this Agreement shall be decided in the courts of Yakima County, in accordance with SECTION 15. If both parties consent in writing, other available means of dispute resolution may be implemented.

SECTION 20 NOTICE

- 20.1 Any notice required to be given under the terms of this Agreement shall be directed to the party at the address set forth below. Notice shall be considered issued and effective upon receipt thereof by the addressee-party, or seventy-two (72) hours after mailing by certified mail to the place of business set forth below, whichever is earlier.
 - CITY: City of Yakima 129 North 2nd Street Yakima, WA 98901 Attn: Bill Preston
 - ENGINEER: Haley & Aldrich, Inc. 3131 Elliott Avenue, Ste 600 Seattle, WA 98121 Attn: Julie Wukelic, CEM, Principal-in-Charge

SECTION 21 INSPECTION AND PRODUCTION OF RECORDS

- 21.1 All records in all formats relating to the WORK shall, at all times, be subject to inspection by and with the approval of the City, but the making of (or failure or delay in making) such inspection or approval shall not relieve ENGINEER of responsibility for performance of the WORK in accordance with this Agreement, notwithstanding the City's knowledge of defective or non-complying performance, its substantiality or the ease of its discovery. ENGINEER shall provide the City sufficient, safe, and proper facilities, and/or send copies of the requested documents to the City. ENGINEER's records relating to the WORK will be provided to the City upon the City's request.
- 21.2 ENGINEER shall promptly furnish the City with such information and records which are related to the WORK of this Agreement as may be requested by the City. Until the expiration of six (6) years after final payment of the compensation payable under this Agreement, or for a longer period if required by law or by the Washington Secretary of State's record retention schedule, ENGINEER shall retain and provide the City access to (and the City shall have the right to examine, audit and copy) all of ENGINEER's books, documents, papers and records which are related to the WORK performed by ENGINEER under this Agreement. Prior to converting any paper records to electronic format and/or destroying any records, ENGINEER shall contact CITY's Records Administrator (509-575-6037) to discuss retention. In no event shall any record relating to the WORK be destroyed without CITY consultation.
- 21.3 All records relating to ENGINEER's services under this Agreement must be made available to the City, and the records relating to the WORK are City of Yakima records. They must be produced to third parties, if required pursuant to the Washington State Public Records Act, Chapter 42.56 RCW, or by law. All records relating to ENGINEER's services under this Agreement must be retained by ENGINEER for the minimum period of time required pursuant to the Washington Secretary of State's records retention schedule.

21.4 The terms of this section shall survive any expiration or termination of this Agreement.

SECTION 22 COMPLIANCE WITH THE LAW

- 22.1 ENGINEER agrees to perform all WORK under and pursuant to this Agreement in full compliance with any and all applicable laws, rules, and regulations adopted or promulgated by any governmental agency or regulatory body, whether federal, state, local, or otherwise, including policies adopted by the City, as those laws, ordinances, rules, regulations, and policies now exist or may hereafter be amended or enacted. ENGINEER shall procure and have all applicable and necessary permits, licenses and approvals of any federal, state, and local government or governmental authority or this project, pay all charges and fees, and give all notices necessary and incidental to the due and lawful execution of the work.
- 22.2 ENGINEER shall procure and have all applicable and necessary permits, licenses and approvals of any federal, state, and local government or governmental authority or this project, pay all charges and fees, and give all notices necessary and incidental to the due and lawful execution of the work.
 - 22.2.1 Procurement of a City Business License. ENGINEER must procure a City of Yakima Business License and pay all charges, fees, and taxes associated with said license.
 - 22.2.2 ENGINEER must provide proof of a valid Washington department of Revenue state excise tax registration number, as required in Title 85 RCW.
 - 22.2.3 ENGINEER must provide proof of a valid Washington Unified Business Identification (UBI) number. ENGINEER must have a current UBI number and not be disqualified from bidding on any public works contract under RCW 39.06.101 or 36.12.065(3).
 - 22.2.4 ENGINEER must provide proof of a valid Washington Employment Security Department number as required by Title 50 RCW.
 - 22.2.5 <u>Foreign (Non-Washington) Corporations</u>: Although the City does not require foreign corporate proposers to qualify in the City, County or State prior to submitting a proposal, it is specifically understood and agreed that any such corporation will promptly take all necessary measures to become authorized to conduct business in the City of Yakima, at their own expense, without regard to whether such corporation is actually awarded the contract, and in the event that the award is made, prior to conducting any business in the City.

SECTION 23 MISCELLANEOUS PROVISIONS

- 23.1 Nondiscrimination. During the performance of this Agreement, the ENGINEER agrees as follows: The ENGINEER shall not discriminate against any person on the grounds of race, creed, color, religion, national origin, sex, age, marital status, sexual orientation, gender identity, pregnancy, veteran's status, political affiliation or belief, or the presence of any sensory, mental or physical handicap in violation of the Washington State Law Against Discrimination (RCW chapter 49.60) or the Americans with Disabilities Act (42 USC 12101 et seq.). This provision shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, selection for training, and the provision of WORK under this Agreement. In the event of the ENGINEER's noncompliance with the nondiscrimination clause of this contract or with any such rules, regulations, or orders, this Agreement may be cancelled, terminated, or suspended in whole or in part and the ENGINEER may be declared ineligible for any future City contracts.
- 23.2 Pay transparency nondiscrimination. The ENGINEER will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. However, employees who have access to the compensation information of other employees or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who

do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or (c) consistent with the contractor's legal duty to furnish information.

- 23.3 Severability. If any term or condition of this Agreement or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this Agreement are declared severable.
- 23.4 Agreement documents. This Agreement, the Request for Qualifications & Proposals titled "RFP for 2313 W Nob Hill Blvd (Tiger Oil) Site Cleanup", Scope of Work, conditions, addenda, and modifications and ENGINEER's proposal (to the extent consistent with Yakima City documents) constitute the Agreement Documents and are complementary. Specific Federal and State laws and the terms of this Agreement, in that order respectively, supersede other inconsistent provisions. These Agreement Documents are on file in the Office of the Purchasing Manager, 129 No. 2nd St., Yakima, WA, 98901, and are hereby incorporated by reference into this Agreement.
- 23.5 Notice of change in financial condition. If, during this Agreement, the ENGINEER experiences a change in its financial condition that may affect its ability to perform under the Agreement, or experiences a change of ownership or control, the ENGINEER shall immediately notify the City in writing. Failure to notify the City of such a change in financial condition or change of ownership or control shall be sufficient grounds for termination.
- 23.6 No conflicts of interest. ENGINEER represents that it or its employees do not have any interest and shall not hereafter acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of this Agreement. ENGINEER further covenants that it will not hire anyone or any entity having such a conflict of interest during the performance of this Agreement.
- 23.7 Promotional advertising prohibited. Reference to or use of the City, any of its departments, agencies or other subunits, or any official or employee for commercial promotion is prohibited. News releases pertaining to this procurement shall not be made without prior approval of the City. Release of broadcast emails pertaining to this procurement shall not be made without prior written authorization of the City.
- 23.8 Time is of the essence. Timely provision of the WORK required under this Agreement shall be of the essence of the Agreement, including the provision of the WORK within the time agreed or on a date specified herein.
- 23.9 Waiver of breach. A waiver by either party hereto of a breach of the other party hereto of any covenant or condition of this Agreement shall not impair the right of the party not in default to avail itself of any subsequent breach thereof. Leniency, delay or failure of either party to insist upon strict performance of any agreement, covenant or condition of this Agreement, or to exercise any right herein given in any one or more instances, shall not be construed as a waiver or relinquishment of any such agreement, covenant, condition or right.
- 23.10 Force Majeure. ENGINEER will not be responsible for delays in delivery due to acts of God, fire, strikes, riots, delay in transportation, or those effects of epidemics or pandemics that could not have been reasonably anticipated or mitigated through acts of the ENGINEER; provided ENGINEER notifies the City immediately in writing of such pending or actual delay. Normally in the event of such delays, the date of delivery of WORK will be extended for a period of time equal to the time lost due to the reason for delay.
- 23.11 Authority. The person executing this Agreement on behalf of ENGINEER represents and warrants that they have been fully authorized by ENGINEER to execute this Agreement on its behalf and to legally bind ENGINEER to all terms, performances, and provisions of this Agreement.
- 23.12 Survival. The foregoing sections of this Agreement, inclusive, shall survive the expiration or termination of this Agreement, in accordance with their terms.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective authorized officers or representatives as of the day and year first above written.

CITY OF YAKIMA

HALEY & ALDRICH, INC.

Bob Harrison

Signature Printed Name: JULIE K.W.WUKFUL Title: SENIOR PRINCIPAL ENGINEER

Title: City Manager

Date:____

Date: NOVEMBER 15, 2022

Attest _ City Clerk

Printed Name:

Resolution: R-2022-Contract 2022-____

STATE OF WASHINGTON

)) ss.)

COUNTY OF YAKIMA

I certify that I know or have satisfactory evidence that Bob Harrison is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged it as the CITY MANAGER of the CITY OF YAKIMA, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated:

Seal or Stamp

.

(Signature)

Title	
Printed Name	A State of
My commission expires:_	
,	

STATE OF WASHINGTON MY

)) ss.)

COUNTY OF YAKIMA KINY

I certify that I know or have satisfactory evidence that ______ is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument, and acknowledged it as the ______ of _____ to be the free and voluntary act of such party for the uses and purposes

mentioned in the instrument.

Dated: 1-15-202 2

Seal or Stamp



(Signatu Title Printed Name My commission expires:

EXHIBIT A

SCOPE OF WORK

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HALEY & ALDRICH, INC. 3131 Elliott Avenue, Suite 600 Seattle, WA, 98121 206.324.9530

5 October 2022 File No. P204793-000

City of Yakima, Office of the City Clerk Yakima City Hall 129 N. 2nd Street Yakima, WA 98901

Attention:	Mr. Bill Preston, P.E., Yakima City Engineer
Subject:	Former Tiger Oil West Nob Hill Site
	Facility Site ID: 469, Cleanup Site ID: 4919
	2312 W. Nob Hill Blvd, Yakima, Washington 98902
	Proposal and Scope of Work for Task 1
	Sub-Slab Depressurization System (SSDS) Pilot Testing and Design

Haley & Aldrich, Inc. (Haley & Aldrich) is pleased to submit this proposal for engineering and environmental services in connection with the above-referenced site (the Site).

Project Understanding

The Site (Washington State Department of Ecology [Ecology] Facility Site No. 469, Cleanup Site No. 4919) is located at 2312 West Nob Hill Boulevard, in Yakima, Washington. Site is specific to where contamination resulting from former operations at the former Tiger Oil facility (the Property) has come to lie, irrespective of property boundaries. A retail gasoline station had operated on the Property from 1978 until 2001. Currently, there are no commercial activities at the gravel-surface undeveloped Property. Several fuel releases at the Property during its active facility operations had resulted in gasoline petroleum fuel impacts to soil and groundwater at the Property as well as to the adjoining parcels to the east, south, and southeast (the Site – Figure 1). Interim remediation and groundwater monitoring activities conducted at the Site are conducted under Amended Consent Decree No. 02-2-00956-22.

The Property is owned by Heyden Properties, LLC (Heyden Properties). The City of Yakima was formerly the property owner until 2019. The Property is currently zoned as "B-2" with designation of future land use as Community Mixed Use. Access to the Property is from West Nob Hill Boulevard and South 24th Avenue, adjacent north and west, respectively, of the Property.

Until it was purchased by Tiger Oil Corporation (New Tiger) in 1987, the Property was operated by the Tiger Oil Company as a retail fuel station. New Tiger operated the Property as an Exxon-branded fuel station and convenience store from 1987 until 2001. All commercial operations ceased in 2001 and the Property has remained vacant since (Ecology, 2021). The fuel station included four underground storage

tanks (USTs) (one 20,000-gallon, two 10,000-gallon, and one 8,000-gallon tank) and associated product lines. The system was used for bulk petroleum storage and distribution.

It was estimated that approximately 20,000 gallons of petroleum-related product had been released from the Property's UST system in the early 1980s. Several recovery wells had been installed by early 1983 at the Property and on adjacent parcels to the east and south. By March 1984, approximately 16,000 gallons of LNAPL had been extracted from the recovery wells (Ecology, 2021).

Groundwater monitoring was being conducted on a semiannual basis at the Site. **Figure 1** presents the location of monitoring wells at the Site. Groundwater monitoring events in 2021 indicated that LNAPL thicknesses had ranged from 0.005 to 2.79 feet within the source area at the Property and at immediate area downgradient to the east-southeast. **Figure 2** presents the estimated extent of residual LNAPL. Groundwater analytical results of the 13 compliance monitoring wells sampled during the May 2021 monitoring event indicated that gasoline-range total petroleum hydrocarbons (TPHs) exceedances ranged from 1,800 micrograms per liter (ug/L) to 15,000 ug/L, above the Washington State Model Toxics Control Act (MTCA) cleanup level (CUL) of 800 ug/L. Groundwater analytical results also showed that benzene exceedances had ranged from 5.1 ug/L to 680 ug/L – above the MTCA Method A CUL of 5 ug/L. The core of the dissolved-phase plume includes monitoring wells exhibiting the highest concentrations of gasoline-range TPH and benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents. Monitoring wells YMW-1, YMW-2, YMW-3, MW-13, and S-2 are adjacent to and/or downgradient of the area where residual petroleum-contaminated soil was not accessible during the interim remedial action **Figure 2**).

Additionally, groundwater at the Site is also impacted by halogenated VOCs, typically associated with solvents from dry cleaning operations. Groundwater at the Site exhibits detections of tetrachloroethene (PCE), at concentrations (11 ug/L to 28 ug/L) above the MTCA Method A CUL (5 ug/L). Vinyl chloride, a breakdown product of PCE, was also exhibited at concentrations (0.63 ug/L and 0.98 ug/L) above its MTCA Method A CUL (0.5 ug/L) (Ecology, 2022).

It is our understanding that indoor air quality assessment at the three adjoining businesses (Xochimilco Mexican Restaurant, Barber HQ, and 1Up Games) to the Property) has indicated the presence of gasoline-range TPH, benzene at concentrations above Ecology Indoor Air Method B Cancer CULs. and PCE and trans-1,2-dichloroethene were detected at the Xochimilco Mexican Restaurant (Xochimilco) albeit below their respective Indoor Air Method B CULs.

Haley & Aldrich is proposing to install an active sub-slab depressurization system (SSDS) to mitigate vapor intrusion from shallow groundwater and sub-slab soil into the indoor air of the adjacent three businesses to the Property. The proposed SSDS will consist of fans/blowers that draw vapors from the soil beneath the buildings through suction pits and discharges the vapors to the atmosphere through a series of pipes. The system will be designed to decrease the air pressure in the soil beneath the building's floor slab. By maintaining a pressure slightly lower than ambient air pressure beneath the buildings, soil vapors are prevented from entering the buildings where they could pose a threat to human health.



We are proposing to conduct a SSDS field diagnostic pilot test (pilot test) before the design and installation of the SSDS to aid in the design of the most suitable and cost-effective mitigation strategy, as well as to better quantify the overall magnitude and size of the required mitigation system. The results of the pilot testing will be used to finalize the optimum system layout, SSDS well radius of influence (ROI) and well placement spacing, fan/blower specifications, the number of SSDS suction points/vapor extraction points (VEPs), and fan/blower installation location (i.e., roof/wall mounted vs. a centralized on-ground skid/shed enclosed process equipment) as presented in the preliminary conceptual system design included in this proposal.

Preliminary SSDS Conceptual Design

The SSDS well placement is based upon the predicted ROI of the SSDS wells that is also referred to as the design basis. The assumed ROI of each VEP is 20 feet, minimum. Based on the on-site and off-site extent and distribution of the constituents of concern (COC) soil vapor concentrations, groundwater impacts, indoor air COC concentration exceedance locations at the three adjoining businesses to the Property, and the assumed SSDS well ROI of 20 feet (equivalent to a center-to-center well spacing design of approximately 35-feet on-center), the preliminary SSDS conceptual design consists of a total of 12 vertical VEP locations. The proposed VEP locations are shown on **Figure 3**. The assumed vapor extraction ROI will be verified based on the results of the planned SSDS pilot testing, and hence, the system layout, well placement spacing, number of wells, well locations, blower/fan specifications, blower/fan installation location (i.e., roof/wall mounted vs. a centralized on-ground skid/shed enclosed process equipment) proposed herein will be revised accordingly, as needed.

The preliminary SSDS conceptual design is presented in **Figure 3**. The system is proposed to be comprised of 12 exterior VEPs with approximately 35-foot on-center spacing. The extraction points will be constructed of 2-inch polyvinyl chloride (PVC), Schedule 80 riser pipe, with 0.020-inch slot screens from 6 to 11 feet below ground surface (bgs) and include flush-mounted well completion with a traffic rated 3-foot by 2-foot steel well vault, air flow control gate valve, vacuum gauge, and sampling port. Typical VEP construction details are provided in **Figure 4**. The exterior VEPs will be installed on the west and south sides of the Xochimilco building and on the north and east sides of the building housing the Barber HQ and 1Up Games businesses, as shown in **Figure 3**.

The SSDS will also be comprised of exterior and interior vapor/vacuum monitoring points (VMPs). Each building will have three exterior VMPs. In addition, four interior VMPs are proposed for the Xochimilco Mexican Restaurant, and four interior VMPs are proposed for the Barber HQ and 1Up Games businesses. The proposed VMP locations are shown on **Figure 3**. Typical VMP well construction details are provided in **Figure 4**. The exterior VMPs will be constructed of 1-inch PVC, Schedule 40 riser pipe, with 0.020-inch slot screens from 5 to 10 feet bgs and include flush-mounted well completion with a traffic rated 6-inch diameter steel well box. The interior VMPs will be VaporPin® type which are small stainless steel ¼-inch diameter (or smaller) points. These points will be installed to shallow depths, just below the concrete slab, using a small concrete coring machine and completed with a 1-¼-inch stainless steel well cap which will minimize disruptions to the businesses. The other two VMPs will also be installed to shallow depths but will be constructed using a 1-inch-diameter, 2-foot-long PVC Schedule 40 casing and one 1-foot-long



PVC Schedule 40, machine-slotted, well screen (0.020-inch slot). These VMPs will be completed within a flush-mounted traffic rated 4-inch diameter steel well box.

SSDS wellhead assemblies will be provided within the flush-mounted precast steel well vaults (lockable well box) for each VEP. Wellhead assembly instrumentation and controls (e.g., gate valve, vacuum gauge, and sample port, etc.) will be located with the precast steel vaults. Below grade 4-inch PVC, Schedule 80 conveyance piping (installed in trenches) will connect the VEPs to a centrally located SSDS process equipment shed/container consisting of blower(s), instrumentation, a heat exchanger, and vapor-phase granular activated carbon (VGAC) units. The SSDS process equipment container will be located at the southeastern corner of the former Tiger Oil facility or alternatively the equipment will consist of wall/roof mounted fans/blowers depending upon the equipment sizing to be determined based on the upcoming SSDS pilot test results. The preliminary proposed VEP wellhead locations, below grade conveyance piping layout, and the process equipment container location are shown on **Figure 3**.

The SSDS process equipment will be comprised of regenerative blower(s), a moisture separator, two 500 to 1,000 pounds (lbs) VGAC units (depending upon the select blower sizing), a heat exchanger, and an exhaust stack that extends above the roof of the SSDS process equipment container. The system will be operated using a Sensa-Phone with Autodialer or a Programmable Logic Controller (PLC) with Remote Telemetry System and Control Panels. A schematic of the proposed SSDS process equipment is provided in **Figure 5**.

Scope of Work

We propose to undertake the following services:

- Project Kick-Off Meeting, Pilot Test Design, Permitting, Planning, and Coordination
- Drilling and Well Installation
- Pilot Test Equipment Mobilization and Setup
- Pilot Testing
- SSDS Design and Implementation Work Plan

All field construction and setup work (drilling, well installation, equipment setup, etc.) will be performed under Haley & Aldrich's oversight. All pilot testing activities will be performed by Haley & Aldrich.

TASK 1A: PROJECT KICK-OFF MEETING, PILOT TEST DESIGN, PERMITTING, PLANNING, AND COORDINATION

Haley & Aldrich proposes a project kick-off meeting with the City of Yakima (the City), Heyden Properties, and Ecology to discuss the task objectives, details, site logistics, and permitting and planning details.



Prior to the start of field pilot test activities, the following pilot testing design, permitting, planning, and coordination activities will be performed:

- 1. Conduct a site reconnaissance to observe the existing conditions and access for performing a pilot test;
- 2. Evaluate the readily available data relevant to the subsurface soil, groundwater, soil vapor, and indoor air conditions at the Site from geologic maps, boring logs, construction records, and previous environmental investigation and remedial design/implementation reports;
- 3. Gather readily available information on the building construction, and heating/ventilation/and cooling (HVAC) specifications;
- 4. Design the pilot test program. The test will involve installation of two exterior VEPs and two exterior VMPs at the west side of the Xochimilco Mexican Restaurant building, and four interior VMPs; and
- 5. Arrange for special equipment (i.e., rental blower skid with a capacity of approximately 100 standard cubic feet per minute [scfm] air flow rate at approximately6 inches of mercury [in. Hg] vacuum, necessary instrumentation and process monitoring equipment, electrical power generator, two 200 lbs VGAC units for off-gas treatment, etc.) and services required for installation of the extraction and monitoring points, and for performing the pilot test. This includes subcontractor coordination for installation of the extraction and monitoring not the extraction and monitoring points, and a geophysical survey to clear the locations of sub-slab obstructions and buried utilities.

Prior to the start of field activities, a site-specific Health and Safety Plan (HASP) will be prepared to address potential health and safety concerns for the proposed field activities. The HASP will be prepared in accordance with the requirements of the Washington State Department of Labor and Industries, Division of Occupational Safety and Health (DOSH), Washington Industrial Safety and Health Act (WISHA) and the United States Occupational Health and Safety Administration 29 Code of Federal Regulations 1910.120, Hazardous Waste Operations and Emergency Response.

The proposed SSDS pilot test rental equipment includes active process equipment components (e.g., blower) and VGAC units for the treatment of extracted soil vapors, and therefore will need to be authorized by the Yakima Regional Clean Air Agency prior to construction, setup, and initiation of the pilot test startup and operational activities. Accordingly, an air emissions discharge permit will be acquired and/or notification to the Yakima Regional Clean Air Agency will be performed, as applicable, prior to initiation of any field activities at the Site.

Haley & Aldrich's drilling contractor will mark each of the planned pilot test VEP and VMP installation location at the Site and notify the underground utility service alert (i.e., Washington Utility Notification Center Call in at 811) prior to the start of drilling activities. Each boring location will also be screened and cleared for utilities by a private utility locator and if necessary, cleared by manual excavation and/or air-vacuumed to a depth of approximately 3 feet bgs as a final check for potential presence of underground utilities.



As previously presented, the pilot test will involve installation of two exterior VEPs and two exterior VMPs at the west side of the Xochimilco Mexican Restaurant building, on the Property, and four interior VMPs within the Xochimilco Mexican Restaurant building. Furthermore, the proposed pilot test rental process equipment (i.e., blower skid, VGAC units, rental generator, etc.) is planned to be temporarily located near the eastern property boundary of the Property. Prior to initiation of any fieldwork, written authorization from Heyden Properties, Xochimilco, Barber HQ, and 1Up Games owners and/or tenants will be obtained for the installation of temporary pilot test infrastructure (wells and equipment, etc.) and for the day-to-day field activities to be performed at their respective properties as part of the pilot test.

All field activities will be coordinated with Heyden Properties, the City, and Ecology Site Manager, Xochimilco, Barber HQ, and 1Up Games. Haley & Aldrich will be in direct communications with the City and Ecology throughout all field activities.

This task is estimated to be completed in approximately 2-3 weeks from project authorization.

TASK 1B: DRILLING AND WELL INSTALLATION

A total of two exterior VEPs (VEP-1 and VEP-2), two exterior VMPs (VMP-1 and VMP-2), and four interior VMPs (VMP-3 through VMP-6) will be installed for the pilot test. The VEPs will be placed at locations that attempt to approximate the performance of an active SSDS. The interior VMPs will be placed radially to evaluate vacuum propagation beneath the Xochimilco building slab. The proposed SSDS pilot test well locations are depicted on **Figure 6**. This pilot test extraction and monitoring point network will also be utilized for and integrated into the full-scale SSDS design. The VEPs will be screened from approximately 6 to 11 feet bgs and the VMPs will be screened from approximately 5 to 10 feet bgs. Typical well construction details are shown on **Figure 4**. The final well depths and locations will be adjusted and determined during well installation activities based on the field conditions. The proposed VEPs and VMPs will be installed as follows:

- For the VEPs, limited identification of specific soil intervals will be performed from 0 to 12 feet bgs. Continuous soil cores will be collected using a split spoon sampler (or equivalent). Soil cores will be examined visually for geological characteristics and logged, by a Haley & Aldrich geologist. A dual use direct push & hollow-stem auger drilling unit (truck or track mounted) will be used to first advance a 2.25-inch diameter boring to 12 feet for soil logging purposes, then ream the boring with 6-inch or 8-inch diameter augers to construct the VEP.
- The VEPs will be constructed using a 2-inch-diameter, PVC Schedule 80 casing and one 5-foot-long PVC Schedule 80, machine-slotted, well screen (0.020-inch slot) with # 2 filter pack sand placed from the bottom of the boring to approximately six inches above the top of each screen interval (**Figure 4**). VEPs will be screened at approximately 6 to 11 feet bgs.
- Six inches of dry granular bentonite, and two feet of hydrated bentonite chips or pellets will be placed above the upper filter pack interval to form a transition seal. Cement-bentonite grout will be placed above the transition seal to ground surface.
- All VEP casing risers will be sealed with a 3-feet diameter geomembrane/well borehole seal near the surface completion location at approximately 2 to 3 feet bgs.



- All VEPS will be completed with an 8-inch flush-mounted traffic rated cover/well box.
- For each VEP, an air-water tight well casing cap (with a lockable plug) will be installed at the top of well casing within the well box. Wellhead controls for the pilot test including a sample port, a vacuum gauge, and a gate valve will be installed on an above ground manifold that will be connected to the top of well casing within the well vault.
- The exterior VMPs will be installed using direct push drilling technology to an approximate depth of 11 feet bgs.
- The exterior VMPs will be constructed using a 1-inch-diameter, PVC Schedule 40 casing and one 5-foot-long PVC Schedule 40, machine-slotted, well screen (0.020-inch slot) with # 2 filter pack sand placed from the bottom of the boring to approximately six inches above the top of each screen interval (**Figure 4**). The exterior VMPs will be screened at approximately 5 to 10 feet bgs.
- Six inches of dry granular bentonite, and two feet of hydrated bentonite chips or pellets will be placed above the upper filter pack interval to form a transition seal. Cement-bentonite grout will be placed above the transition seal to ground surface.
- All exterior VMPs will be completed with a 6-inch flush-mounted traffic rated cover/well box.
- For each VMP, an air-water tight well casing cap (with a lockable plug) and a sample port will be installed at the top of well casing within the well box.
- The interior VMPs are proposed to be constructed of two slightly different construction details. Two interior VMPs (VMP-3 and 6) will be VaporPin® type which are small stainless steel ¼-inch diameter (or smaller) points. These points will be installed to shallow depths, just below the concrete slab, using a small concrete coring machine and completed with a 1-¼-inch stainless steel well cap which will minimize disruptions to the businesses. The other two VMPs (VMP-4 and VMP-5) will also be installed to shallow depths but will be constructed using a 1-inch-diameter, 2-foot-long PVC Schedule 40 casing and one 1-foot-long PVC Schedule 40, machine-slotted, well screen (0.020-inch slot) with # 2 filter pack sand placed from the bottom of the boring to approximately six inches above the top of the screen interval. These VMPs will be completed within a flush-mounted traffic rated 4-inch diameter steel well box.

All drilling and well installation work shall be performed by a Washington licensed driller who will be a subcontractor to Haley & Aldrich. All drilling and well installation work will be performed under Haley & Aldrich's oversight.

The location of the VEPs and VMPs will be surveyed and reported as longitude and latitude relative to North American Datum of 1983. The ground surface and top-of-casing elevation will be surveyed relative to North American Vertical Datum of 1988.

Investigation-derived-waste (IDW) generated during drilling and well installation activities such as equipment wash, and rinse water and soil cuttings will be placed into 55-gallon Department of Transportation approved drums and temporarily stored on Site. The waste will be characterized and disposed of within approximately 90 days once the characterization of the IDW has been completed and approved by the regulated disposal facility.

This task is estimated to be completed in approximately 3 to 4 fieldwork days.



TASK 1C: PILOT TEST EQUIPMENT MOBILIZATION AND SETUP

Rental process equipment, skid mounted, or a temporary container/shed/trailer mounted, meeting the design specifications as provided in this section will be used at the Site for pilot testing. The rental process equipment will be equipped with the capacity to extract vapors at approximately 100 scfm at an applied vacuum of approximately 6 in. Hg or 68 in. H₂O vacuum at the inlet of the blower skid. The rental process equipment will primarily consist of:

- A regenerative blower (or approved equivalent), with variable frequency drives (VFDs), with an air flow rate capacity of approximately 100 scfm at approximately 6 in. Hg or 68 in. H₂O vacuum measured at the inlet of the blower;
- One dilution air valve;
- One inline particulate filter;
- One 60 gallons capacity air moisture separator with demister;
- One water/condensate transfer pump rated for 10 gallons per minute flow capacity at a total discharge pressure head capacity of 50 feet;
- Two 200 lbs VGAC units (depending upon the select blower sizing), installed in series, to be sized by the equipment supplier based on the SSDS design total air flow rate and anticipated low levels of vapor concentrations in the system influent;
- A heat exchanger, if needed based upon the selected blowers air discharge temperature;
- Silencers, if needed, based on noise generated by the blower;
- One 10 feet tall air discharge stack constructed of a 4-inches diameter PVC Schedule 40 solid pipe with supports; and
- Valves, instrumentation, and controls, as required.

The rental process equipment, instrumentation, and wiring associated with the enclosure will be constructed to Class I, Division II Standards as per National Fire Protection Association (NFPA) National Electric Code (NEC) standards (e.g., NFPA 70 and NFPA 496) and Underwriter Laboratories (UL 1604) standards. Automatic controls will be provided to protect the process equipment. Process gauges/indicators will be provided as required to monitor the performance of the system. The main control panel for the rental equipment will be located inside of the preassembled enclosure and will be constructed to National Electrical Manufacturer Association (NEMA) 4X standards.

The rental process equipment will be delivered and setup at the Site by the equipment supplier. All equipment will be temporarily placed near the eastern property boundary of the Property (**Figure 6**). A temporary chain-linked fence (approximately 60 linear feet) will be built around the rental equipment with access gates. The rental equipment will be powered by a tow-behind, appropriately sized, rental diesel/gasoline electrical generator. The connection of the rental process equipment main power disconnect to the electrical generator will be provided by a Washington licensed electrician or a trained professional from the equipment supplier company. The trained professional from the equipment supplier company may also assist in performing the process



equipment shakedown/startup to check the proper functionality of all components of the equipment prior to initiating the SSDS pilot testing.

This task is estimated to be completed in approximately one to two fieldwork days.

TASK 1D: PILOT TESTING

The SSDS pilot test will be conducted for approximately two to three days at extraction well VEP-1. The extraction well will be fitted with an above ground manifold containing wellhead controls including a sample port, a vacuum gauge, and a gate valve. A total of three vacuum-air flow rate conditions will be tested at the extraction well. Initially, a low vacuum will be applied at the extraction wellhead (less than 2 in. Hg). The vacuum will then be increased to the full capacity of the blower (i.e., 6 in. Hg). The vacuum will then be gradually decreased to reach an approximate mid-point (i.e., 4 in. Hg) while measuring the resultant air flow rates at the extraction well at all the three vacuum-air flow rate conditions. The extraction air flow rates at the extraction well will be measured using a Pilot Tube® or a Thermal Anemometer/Mass Flow Meter. The other extraction well, VEP-2, exterior VMPs (VMP-1 and VMP-2), and interior VMPs (VMP-3 through VMP-6) will be used as observation points to collect vacuum influence/propagation data (**Figure 6**).

Any groundwater and entrained moisture extracted from VEP-1 will be transferred to 55-gallon holding tank(s) for characterization and off-site disposal. The extracted soil vapor will be treated via two 200 lbs VGAC units in series under the Yakima Regional Clean Air Agency permit/authorization.

The observation points used for vacuum observation will be covered with a plastic cap fitted with a ¼inch valve and barbed fitting. The caps will create a tight seal around the well and not allow the vacuum to escape. Vacuum at the extraction well and observation points will be measured using a hand-held Digital Manometer/Magnehelic Differential Pressure Gauges connected to the barbed fittings. Water levels in the wells, if present, will be measured using a manual electronic sounder.

Baseline Data

The following baseline information will be collected and recorded.

- Depth-to-water (DTW) measurements in the observation wells (VEP-2, VMP-1, VMP-2, VMP-4, and VMP-5) and the extraction well (VEP-1) – Note that the DTW cannot be taken at VMP-3 and VMP-6 since these points are VaporPin[®] Type;
- Vacuum from the observation wells (VEP-2, and VMP-1 through VMP-6);
- Hour meter reading at the process equipment unit; and
- Totalizer readings at the process equipment unit.

A vapor sample will be collected (in a summa canister) from the extraction well (VEP-1) casings and analyzed using U.S. Environmental Protection Agency (EPA) Method TO-15 for VOCs, and gasoline-range-TPH. In addition, wellheads of all the observation points will be monitored with a hand-held photo ionization detector (PID) during the prior to start of the pilot test extraction activities.



Operational Field Data

The following data will be collected and recorded during the testing.

- Data at the rental process equipment
 - System vacuum (in. Hg or in. H2O);
 - System air flow rate (scfm);
 - Daily influent and effluent vapor concentrations via PID (parts per million by volume) and via sampling using summa canisters for laboratory analysis using EPA Method TO-15 for VOCs and gasoline-range TPH;
 - System hour meter (hour);
 - Blower temperature (degrees Fahrenheit);
 - Water/condensate knock-out (KO) pot totalizer (gallons);
 - Hourly transfer rate of water from KO pot to Storage Tanks (gallons per hour);
 - Blower hertz;
 - Dilution air valve position;
- Data at Extraction Well
 - DTW below top of well casing (feet); and
 - Air flow rate at wellhead;
 - Vacuum at wellhead (in. Hg or in. H2O); and
 - Final (before completion of the pilot test) VEP-1 vapor concentration via PID (parts per million by volume) and via sampling using summa canisters for laboratory analysis using EPA Method TO-15 for VOCs and gasoline-range TPH.
- Data at Observation Wells
 - Well head vacuum (in. H2O);
 - DTW below top of well casing (feet) with manual measurements; and
 - Final (before completion of the pilot test) vapor concentrations at the observation wells via PID (parts per million by volume). Select vapor samples from some of the observation wells may also be collected in summa canisters for laboratory analysis using EPA Method TO-15 for VOCs and gasoline-range TPH.

For each vacuum-air flow rate condition, a minimum of three full sets of aforementioned data/readings will be collected after reaching vacuum equilibrium/stabilization conditions. The frequency may be modified during the test based on field observations.

Following completion of the test, all extraction and observation wells will be left in place and the risers will be capped. The extraction and observation wells may be incorporated into the full-scale SSDS design, assuming the resulting data support this approach.



Following completion of the pilot test, the rental equipment, temporary manifold, and temporary chainlinked fence will be disassembled and demobilized from the Site.

This task is estimated to be completed over three fieldwork days to perform the pilot test and a half fieldwork day to disassemble the pilot testing manifold, equipment, and chain-linked fence.

TASK 1E: SSDS DESIGN AND IMPLEMENTATION WORK PLAN

Haley & Aldrich will evaluate the pilot test data and perform engineering calculations and computational 2D pneumatic modelling to select the appropriate remedial approach, and to support a preliminary system design.

Based on the evaluation, the preliminary SSDS design as included in this proposal will be revised, as needed, and the design will be finalized. The final SSDS design will include the system layout, and process equipment needed for effective capture of sub-slab vapors and adequate vacuum propagation underneath the buildings slab. We will identify the optimal layout for SSDS extraction points, piping, process equipment (e.g., extraction fans/blowers and discharge manifold), and permanent sub-slab sampling ports. The proposed system will be designed to minimize disruptions to future operations at the Property's constructed building(s) and to achieve the objective of reducing concentrations of COCs in the indoor air. Depending on the results of the evaluation, the design may include installation of perforated/slotted horizontal pipe network (horizontal wells) to achieve adequate coverage across the treatment area. Piping may be routed externally, or within the site building, for discharge above the roofline. The design may involve multiple roof/wall mounted extraction fans/blowers or a centralized on-ground skid/shed enclosed process equipment. The design may also incorporate secondary elements to improve system performance, such as air inlet wells, or sealing the buildings slab with a product designed to reduce vapor intrusion (e.g., Retro CoatTM).

An implementation work plan for the construction, startup, and initial operation, maintenance, and monitoring (OM&M) of the SSDS at the Xochimilco and Barber HQ and 1Up Games buildings will also be prepared during this task. In addition, a planning level engineer's cost estimate for the construction, startup, and initial OM&M of the SSDS will be prepared.

The pilot test findings, final SSDS design, SSDS implementation work plan, and the planning level engineer's cost estimate for SSDS implementation will be provided to the City and Ecology in a technical memorandum which will be signed and stamped by a qualified professional engineer (PE) licensed in the state of Washington. At a minimum, this document will include:

- a. Presentation of the pilot test findings and associated engineering calculations and pneumatic modelling;
- b. A schematic of the proposed full-scale SSDS and equipment;
- c. Identification of location for the proposed SSDS extraction and monitoring points;
- d. System and process equipment general arrangement and layout;
- e. Subsurface piping details;



- f. System process and instrumentation diagram (P&ID);
- g. System general control logic;
- h. System typical construction details;
- i. A list of required permits for construction and operation of the proposed SSDS;
- j. Implementation work plan for the construction, startup, and initial OM&M of the SSDS; and
- k. Planning level engineer's cost estimate for the construction, startup, and initial OM&M of the SSDS.

This task is estimated to be completed in approximately 8 to 12 weeks from conclusion of the pilot test, and receipt of all requested documents including previous environmental reports, architectural and construction details for the Property's anticipated future building construction (as applicable), and HVAC specifications.

The scope of services does not include the following items:

- 1. Abandonment of the pilot test extraction points if the evaluation indicates that these locations are not suitable for a SSDS, or if the Property owner decides to forego implementation of the system.
- 2. Design services and deliverables beyond production of the design memorandum described in Task 1E. Design modifications or additions may be required to make it "construction ready." For example, these may result from the Ecology requests following their review of the SSDS design and implementation work plan. Furthermore, the results of the pilot test may indicate that a remedial solution consisting solely of a SSDS will not be effective for achieving the required reduction of indoor air contaminants. In this case, pursuit of alternative remedial solutions such as HVAC modifications to create a positive-pressure environment within the site buildings may be required; the assessment of such alternative remedial solutions is not included in the scope of this proposal.
- Also excluded under this clause are any structural design elements that may be required for installation of a proposed SSDS system. For example, installation of the proposed SSDS may require structural calculations to determine if the roof can support the loads required for placement of the extraction fan(s)/blowers and manifold.
- 4. Implementation of the proposed design. This includes solicitation of environmental construction firms, system construction, air discharge permitting, overseeing construction activities, or preparation of a construction completion report for submission to the City and Ecology.
- 5. Haley & Aldrich provides no guarantees that the proposed remedial design, if implemented, will be sufficient to reduce the concentrations of indoor air contamination below the applicable regulatory standards that may be required as a condition of regulatory closure for the Site.



These aforementioned excluded services can be provided under the terms of a different agreement, if acceptable to both parties.

We request that the following items be provided to us:

- Available data relevant to the subsurface soil, groundwater, soil-vapor, and indoor air conditions at the Site from geologic maps, boring logs, construction records, and previous environmental investigation and remedial design/implementation reports; and
- All available documents and specifications pertaining to future planned Site buildings construction, as available and applicable. These documents may include structural diagrams, floor plans, architectural drawings, and specifications for the building HVAC system.

Project Schedule

The proposed SSDS will be implemented after receiving approvals from the City and Ecology. A preliminary tentative schedule for each of the key tasks is listed below:

EVENT/TASK	DURATION	ANTICIPATED TIMELINE*
Submittal of the SSDS Pilot Testing and Design Proposal and SOW and Approval from the City of Yakima and the Washington State, Department of Ecology	4 weeks	November - December 2022
Task 1A: Project Kick-Off Meeting, Pilot Test Design, Permitting, Planning, and Coordination	3 weeks	December 2022 - January 2023
Task 1B: Drilling and Well Installation	1 week	January 2023
Task 1C: Pilot Test Equipment Mobilization and Setup	1 week	February 2023
Task 1D: Pilot Testing	1 week	February 2023
Task 1E: SSDS Design and Implementation Work Plan Submittal to the City of Yakima and the Washington State, Department of Ecology	8 weeks	February – March 2023

*The anticipated schedule presented herein is contingent upon the approval of this SSDS Pilot Testing and Design Proposal and Scope of Work from the City of Yakima and the Washington State, Department of Ecology and approval of the pilot test air discharge operating permit/notification for the temporary pilot test system operation from the Yakima Regional Clean Air Agency.



Proposed Budget and Terms and Conditions

Services for Tasks 1A through 1E will be conducted for a total estimated fee of **\$150,057**, including a 10 percent contingency cost, to be provided on a time and materials basis, itemized as follows:

TASK	TASK	H&A	SUBCONTRACTORS	TOTAL
NO.	DESCRIPTION	LABOR		BUDGET
1A	Project Kick-Off Meeting, Pilot Test Design, Permitting, Planning, and Coordination	\$18,800	\$405	\$19,205
1B	Drilling and Well Installation	\$12,130	\$23,000	\$35,130
1C	Pilot Test Equipment Mobilization and Setup	\$9,890	\$20,125	\$30,015
1D	Pilot Testing	\$18,635	\$2760	\$21,395
1E	SSDS Design and Implementation Work Plan	\$30,670		\$30,670
	Sub-Total Budget:	\$90,125	\$46,290	\$136,415
	10% Contingency Cost:			\$13,642
	Total Budget:			\$150,057

*We reserve the right to negotiate adjustments to the proposed fee amount should the assumptions, information, schedule, or authorized scope change from those noted herein.

We anticipate that the undersigned (Yen-Vy Van) will serve as the Project Manager on the project.

Services will be provided on a time and materials basis in accordance with our "Standard Terms and Conditions, 2020" and "Standard Fee Schedule," dated January 2022, designated 2022 PNW, which are integral to this proposal.

Closing

This proposal is valid for a period of 60 days from the date of this letter. If acceptance and authorization to proceed are not received within that period, we reserve the right to renegotiate the estimated costs, schedule for completion, and scope of services.

If the above arrangements are satisfactory to you, please indicate your acceptance by signing and returning one copy of this letter. When accepted by you, this proposal together with the attached Terms and Conditions and Fee Schedule will constitute our Agreement.



We appreciate the opportunity to submit this proposal and look forward to our association with you on this project. Please contact the undersigned if you wish to discuss this proposal or any aspect of the project.

Sincerely yours, HALEY & ALDRICH, INC.

Yen-Vy Van, LHG Senior Project Manager

mer Oppal

Omer Uppal Senior Engineer, Technical Expert

Sali K. W. Wukelin

Julie Wukelic, CEM Principal-in-Charge

Attachments:

This proposal, and the attached "Standard Terms and Conditions, 2020" and "Standard Fee Schedule 2022 PNW", are understood and accepted:

City of Yakima

By		
	(authorized signature)	

By _____(print or type name)

Title _____

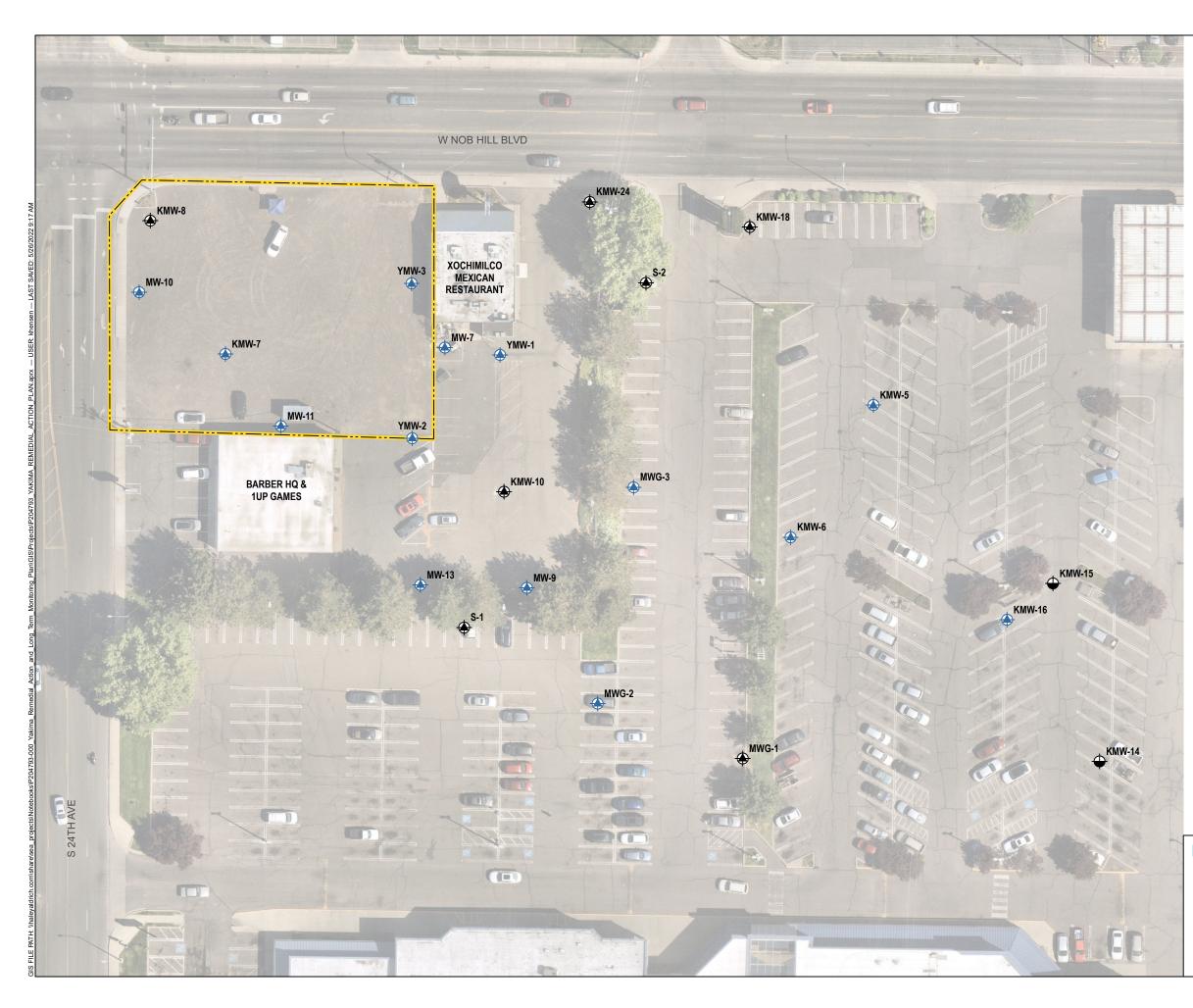
Date _____

Figure 1 – Former Tiger Oil Site Plan Figure 2 – Estimated Extent of Residual LNAPL Figure 3 – Proposed Vapor Mitigation System Preliminary Conceptual Design Figure 4 – Proposed SSDS VEP, VMP, and Trench Typical Construction Details Figure 5 – Proposed SSDS Process Equipment Schematic Figure 6 – Proposed Vapor Mitigation Pilot Test Locations Standard Terms and Conditions, 2020 Standard Fee Schedule 2022 PNW

c: Mary Monahan (Ecology Site Manager)

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LEGEND

GROUNDWATER MONITORING NETWORK WELL



MONITORING WELL

SENTRY MONITORING WELL

FORMER TIGER OIL FACILITY PROPERTY BOUNDARY

NOTES

- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- 2. ASSESSOR PARCEL DATA SOURCE: YAKIMA COUNTY
- 3. SITE DATA SOURCE: MAUL FOSTER & ALONGI, INC., 2016
- 4. AERIAL IMAGERY SOURCE: NEARMAP, 11 MAY 2021



50 SCALE IN FEET

HALEY ALDRICH

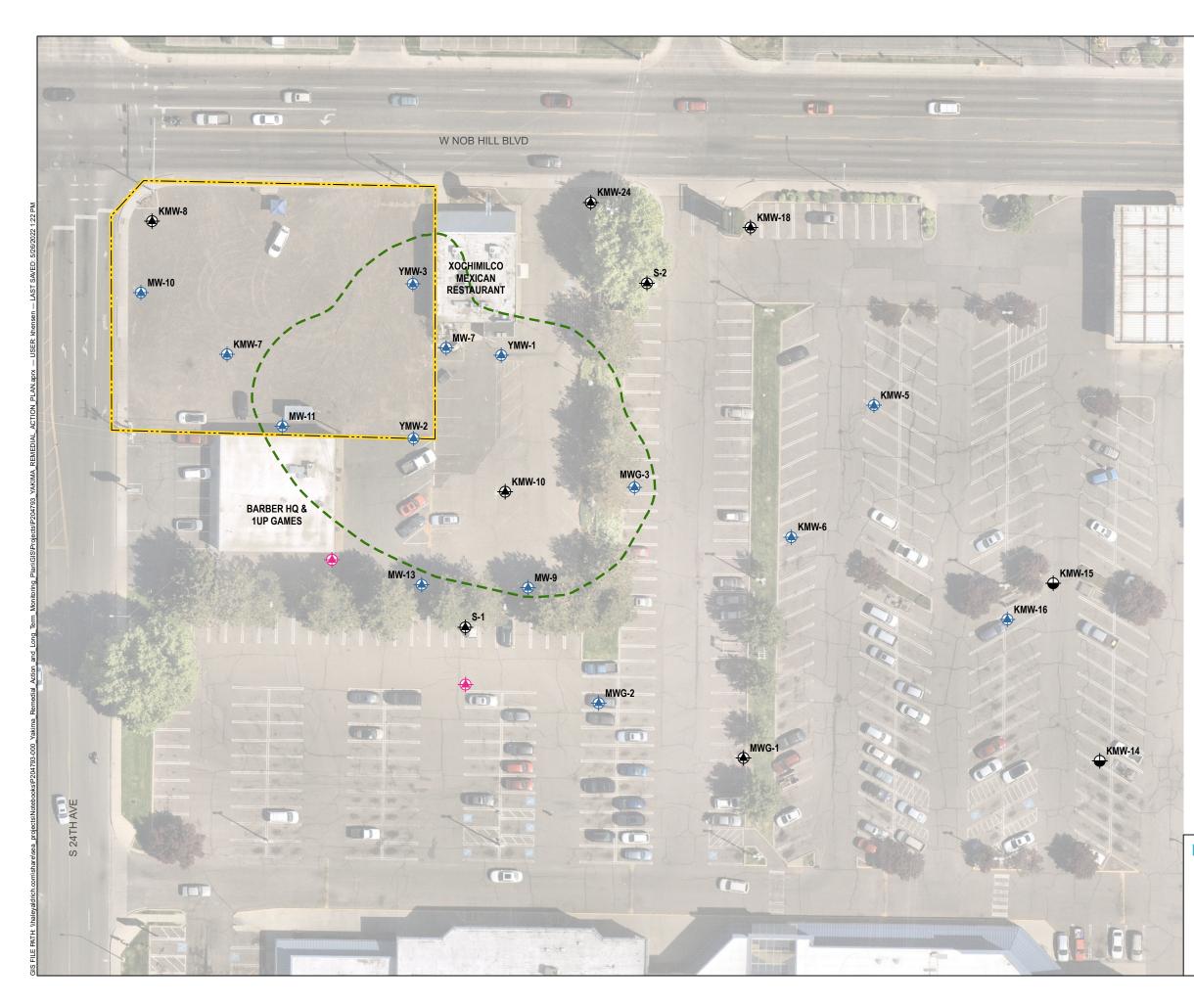
CITY OF YAKIMA PROPOSED REMEDIAL ACTION PLAN AND LONG TERM MONITORING PLAN YAKIMA, WASHINGTON

FORMER TIGER OIL SITE PLAN

MAY 2022

FIGURE 1

100



LEGEND



PROPOSED DATA GAP MONITORING WELL

GROUNDWATER MONITORING NETWORK WELL

MONITORING WELL



SENTRY MONITORING WELL



ESTIMATED RESIDUAL EXTENT OF LIGHT NON-AQUEOUS PHASE LIQUIDS (LNAPL), HALEY & ALDRICH, 2022

FORMER TIGER OIL FACILITY PROPERTY BOUNDARY

NOTES

- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- 2. ASSESSOR PARCEL DATA SOURCE: YAKIMA COUNTY
- 3. SITE DATA SOURCE: MAUL FOSTER & ALONGI, INC., 2016
- 4. AERIAL IMAGERY SOURCE: NEARMAP, 11 MAY 2021



SCALE IN FEET

ALDRICH

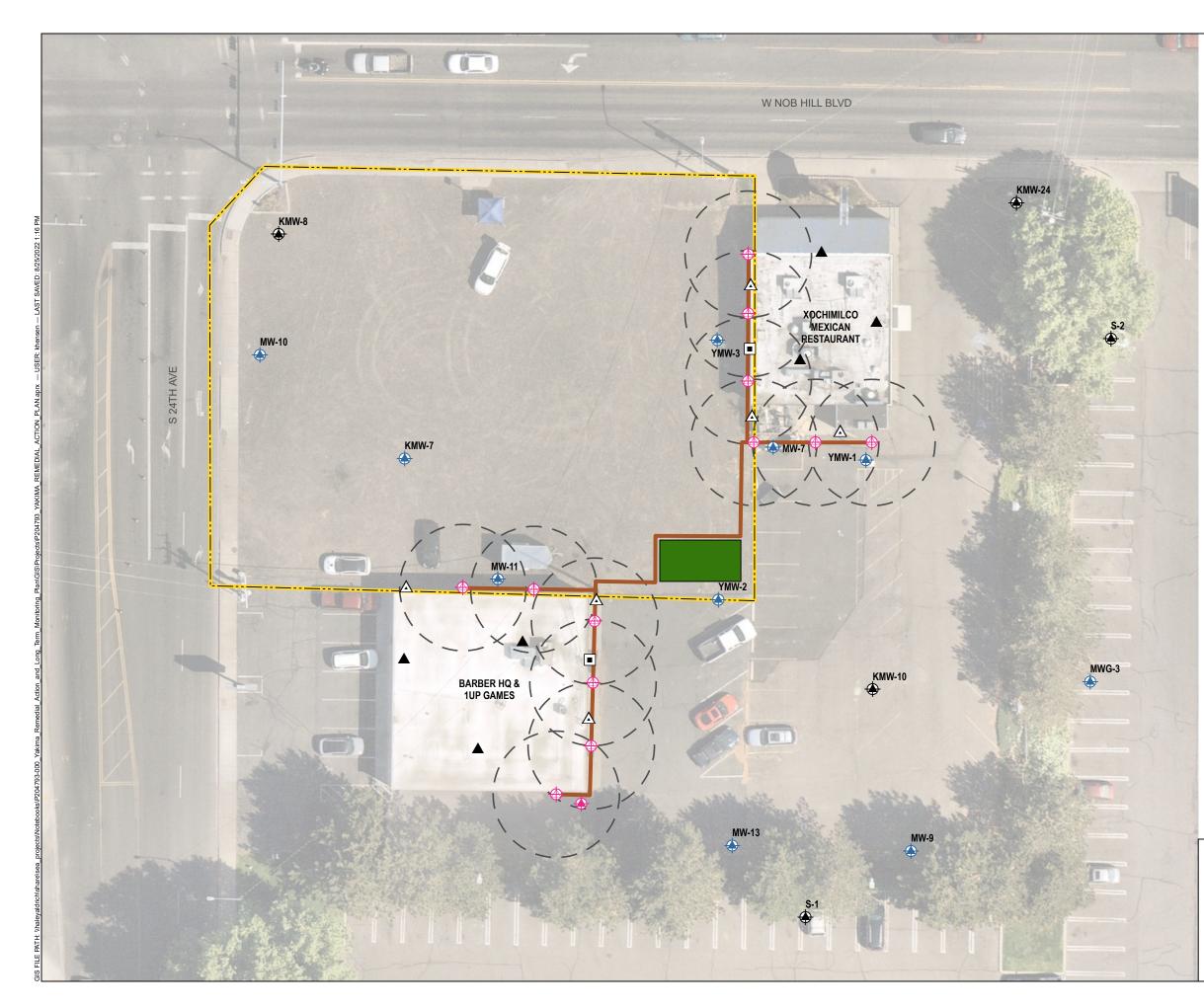
CITY OF YAKIMA PROPOSED REMEDIAL ACTION AND LONG TERM MONITORING PLAN YAKIMA, WASHINGTON

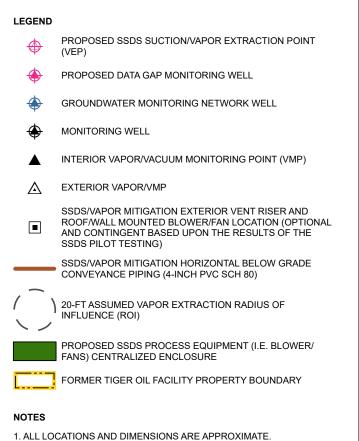
ESTIMATED EXTENT OF RESIDUAL LNAPL

JUNE 2022

FIGURE 2

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2. ASSESSOR PARCEL DATA SOURCE: YAKIMA COUNTY

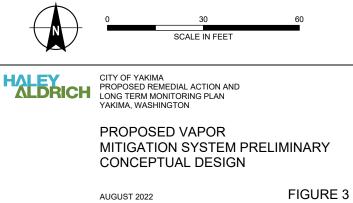
3. PROPOSED SSDS SUCTION/VAPOR EXTRACTION POINTS WILL BE SET APPROXIMATELY 35 FEET CENTER-TO-CENTER SPACING, WITH 4-IN PVC SCH 80 RISER PIPE, 20-SLOT SCREEN, SCREEN INTERVAL: 5 TO 10 FT BGS

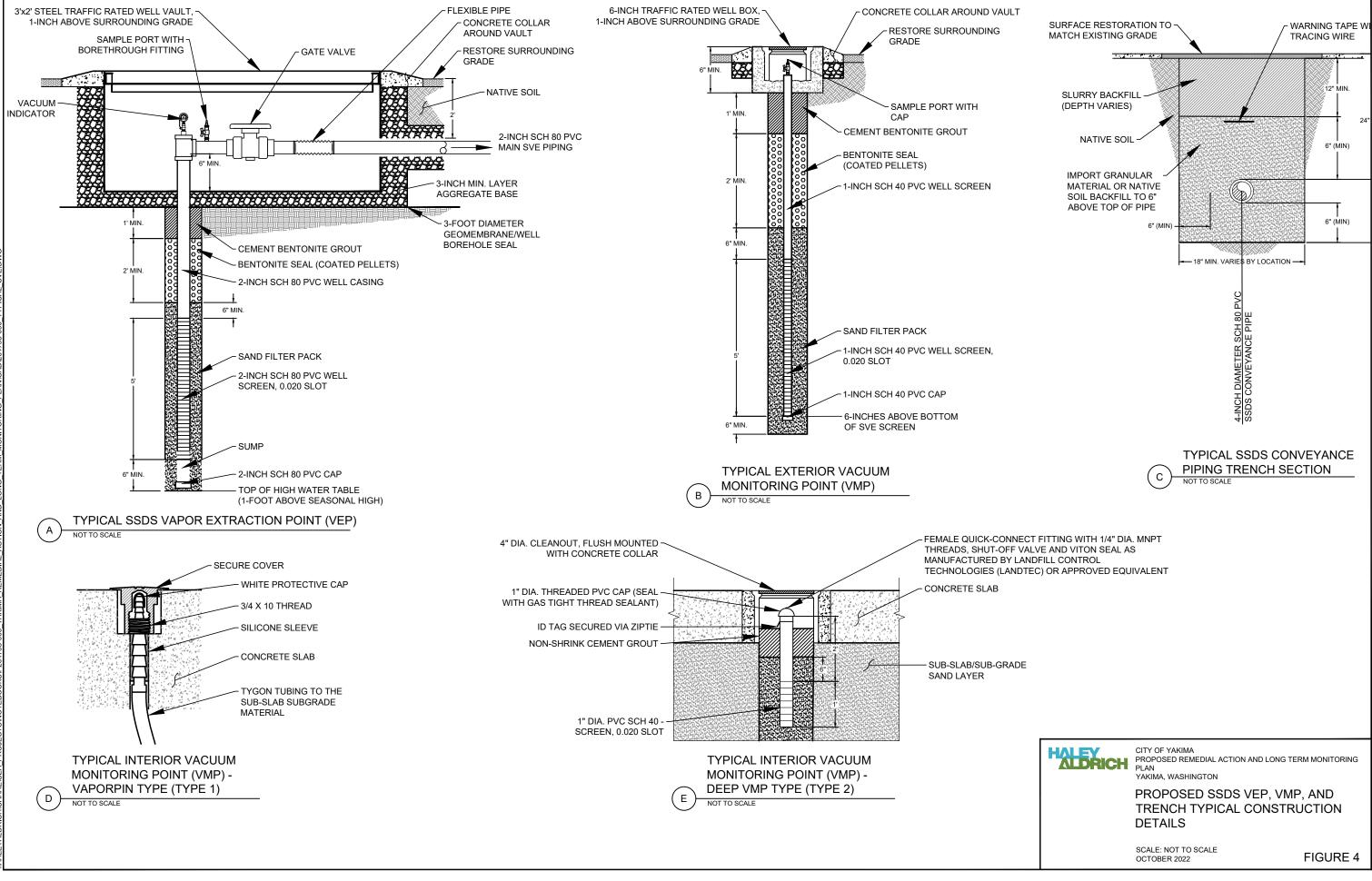
4. ABBREVIATIONS: BGS = BELOW GROUND SURFACE FT = FEET/FOOT PVC = POLYVINYL CHLORIDE SCH = SCHEDULE SSDS = SUB-SLAB DEPRESSUREIZATION SYSTEM

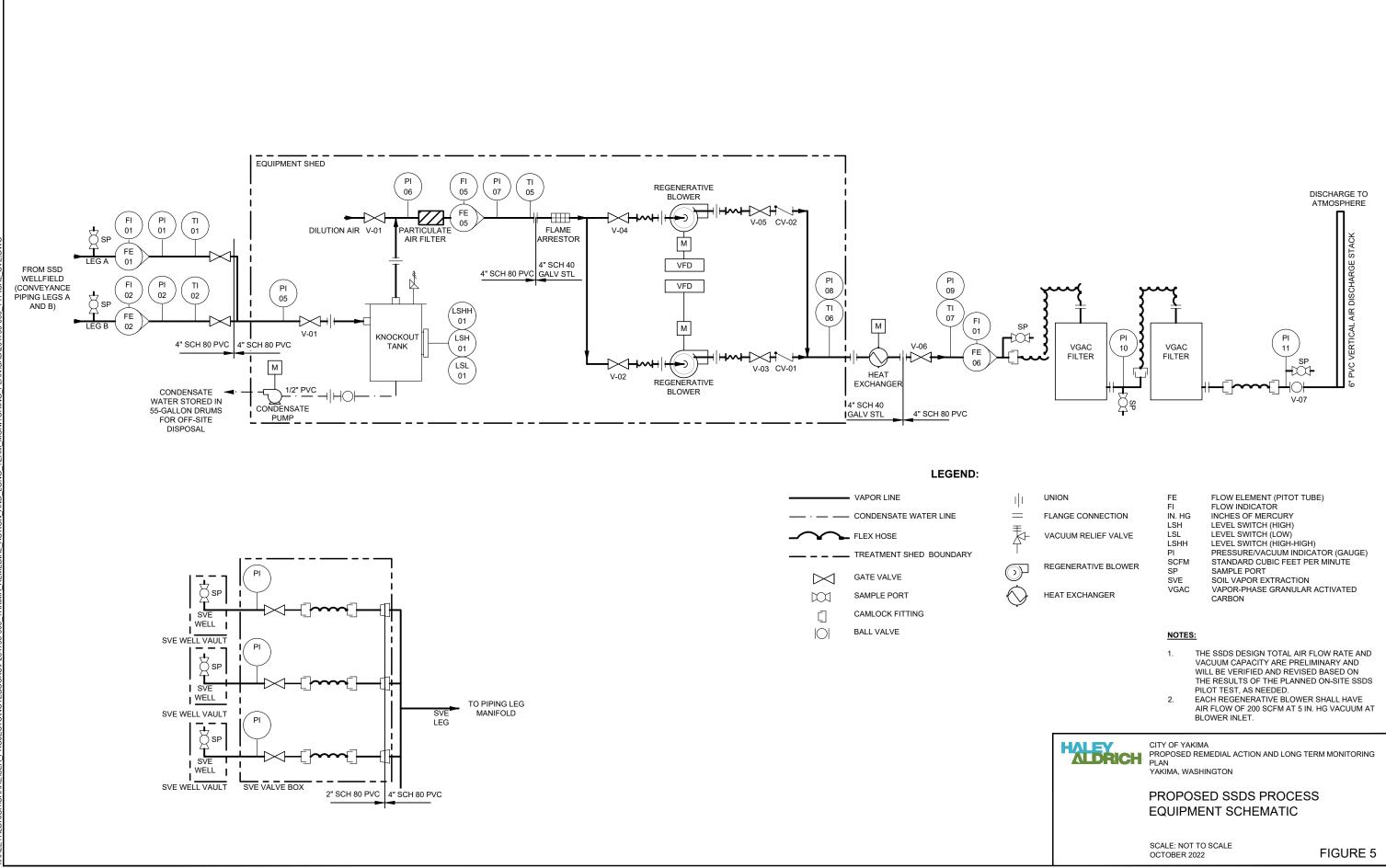
5. THE ASSUMED VAPOR EXTRACTION ROI WILL BE VERIFIED BASED ON THE RESULTS OF THE PLANNED ON-SITE SSDS TESTING, AND HENCE, THE VAPOR EXTRACTION WELL SPACING, NUMBER OF WELLS, WELL LOCATIONS, SSDS LAYOUT, BLOWER/FAN SPECIFICATIONS, BLOWER/FAN INSTALLATION LOCATION (I.E., ROOF/WALL MOUNTED VS. A CENTRALIZED ON-GROUND SKID/SHED ENCLOSED PROCESS EQUIPMENT) PROPOSED IN THIS SOW WILL BE REVISED ACCORDINGLY, AS NEEDED.

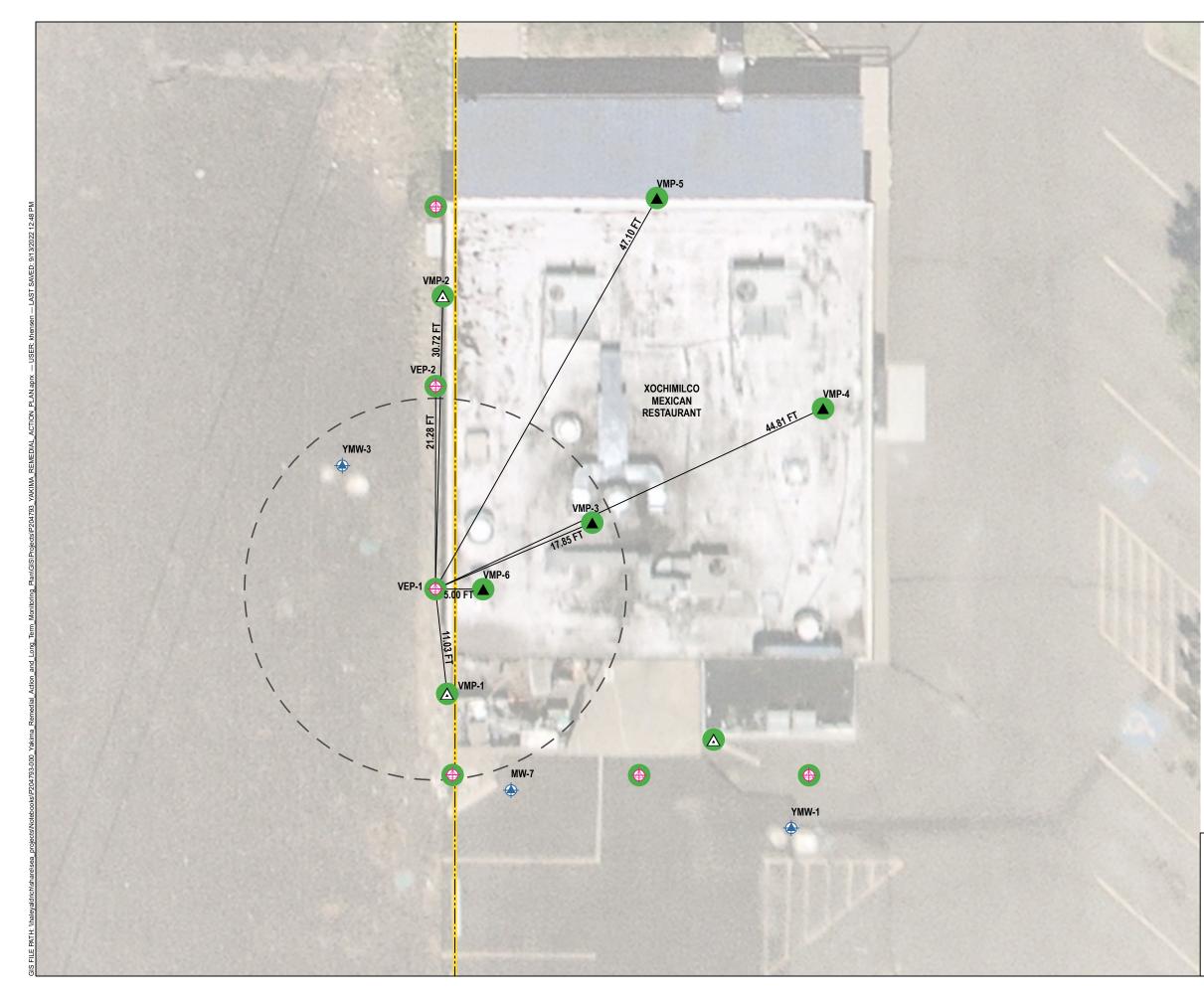
6. FORMER TIGER OIL FACILITY SITE BOUNDARY AND WELL DATA SOURCE: MAUL FOSTER & ALONGI, INC., 2016

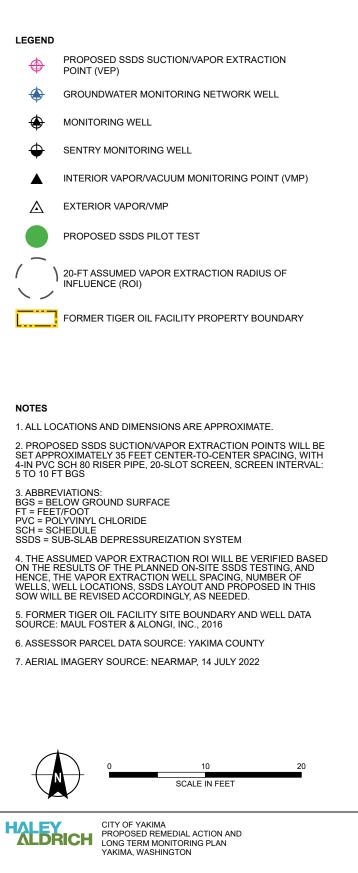
7. AERIAL IMAGERY SOURCE: NEARMAP, 11 MAY 2021











PROPOSED VAPOR MITIGATION PILOT TEST LOCATIONS

SEPTEMBER 2022

FIGURE 6



Standard Terms and Conditions 2020

- 1 INTRODUCTION. These Standard Terms and Conditions, together with the accompanying proposal and any attachments thereto ("Proposal"), constitute the Agreement between Haley & Aldrich, Inc., including its affiliates and subsidiaries ("Haley & Aldrich"), and the entity or person to whom the proposal is addressed ("Client") for the project at the project site ("Site") as may be referenced in the Proposal. Both parties agree that no third-party beneficiaries are intended by this Agreement, which is defined to include these Terms and Conditions and Haley & Aldrich's Proposal.
- 2 <u>HEADINGS</u>. The headings used in these terms and conditions are inserted for the convenience of the parties and shall not define, limit, or describe the scope or the intent of the provisions set forth herein.
- 3. <u>PERFORMANCE OF SERVICES</u>. Client agrees that Haley & Aldrich has been engaged to provide professional services only, and that Haley & Aldrich does not owe a fiduciary responsibility to Client. Haley & Aldrich's services will be performed in accordance with generally accepted practices of engineers and/or scientists providing similar services at the same time, in the same locale, and under like circumstances ("Standard of Care"). No warranty, expressed or implied, is included or intended by this Agreement.
- 4. <u>CLIENT RESPONSIBILITIES</u>. Except as otherwise agreed, Client will secure the approvals, Site access, permits, licenses, and consents necessary for performance of Haley & Aldrich's services under this Agreement. Client shall provide Haley & Aldrich with a plan delineating the boundaries of the Site and all documents, reports, surveys, plans, drawings, information concerning known or suspected Site conditions, above and below ground, information related to hazardous materials or other environmental or geotechnical conditions at the Site, utility information and other information that is reasonably foreseeable to be pertinent to Haley & Aldrich's services under this Agreement. If Client is not the owner of the Site, Client will make all reasonable attempts to obtain these same documents and provide them to Haley & Aldrich. Unless otherwise agreed to in writing by Haley & Aldrich, Haley & Aldrich shall be entitled to rely on documents and information Client provides.
- 5. <u>PAYMENT</u>. Invoices will generally be submitted monthly. Payment will be due within thirty (30) days of invoice date. Interest will be added to accounts in arrears at the rate of one and one-half (1.5) percent per month on the outstanding balance. In the event Haley & Aldrich must engage counsel to enforce overdue payments, Client will reimburse Haley & Aldrich for all attorney's fees and court costs.
- 6. INSURANCE. Haley & Aldrich will maintain: workers' compensation insurance as required under the laws of the state in which the services will be performed; commercial general liability insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 in the aggregate for bodily injury, including death and property damage; automobile liability insurance with a combined single limit of \$1,000,000 per occurrence; professional liability insurance in the amount of \$1,000,000 per claim and in the aggregate; and contractor's pollution liability insurance in the amount of \$1,000,000 per occurrence and in the aggregate.
- 7. <u>OWNERSHIP OF DOCUMENTS AND AUTHORIZED USE</u>. All documents and all processes created, prepared, or furnished under this Agreement by Haley & Aldrich are its instruments of service and all ownership and copyright rights of the same shall remain with Haley & Aldrich. Haley & Aldrich's instruments of service are prepared solely for Client and made available to Client only for the purpose set forth in the Proposal. Client may make and retain copies of Haley & Aldrich's instruments of service, opinions, or reports or otherwise related documents ("Instruments of Services") for the project at the Site. Any (1) reuse or modification of Haley & Aldrich's Instruments of Services without written verification or adaption by Haley & Aldrich for the specific purpose intended and/or (2) unauthorized use of, or reliance upon, Haley & Aldrich's Instruments of Services by any other party, or for any other project or purpose, except and unless Haley & Aldrich provides prior written authorization, shall be at Client's and/or any third party's sole risk and without any liability or legal exposure to Haley & Aldrich. Client shall indemnify, defend, and hold harmless Haley & Aldrich from all claims, damages, losses, and expenses, including attorney's fees, arising out of or resulting therefrom. Client agrees that any such verification or adaptation of Haley & Aldrich's documents and processes shall entitle Haley & Aldrich to just and proper compensation.
- 8 <u>CONFIDENTIALITY</u>. Haley & Aldrich will hold confidential all business and technical information obtained or generated in performing of services under this Agreement. Haley & Aldrich will not disclose such information without Client's consent except to the extent required for: (1) performance of services under this Agreement; (2) compliance with professional standards of conduct for preservation of the public safety, health, and welfare; (3) compliance with any court order, statute, law, or governmental directive; and/or (4) protection of Haley & Aldrich against claims or liabilities arising from the performance of services under this Agreement. Haley & Aldrich's obligations hereunder shall not apply to information in the public domain or lawfully obtained on a non-confidential basis from others.



- 9. <u>SUSPENSION OF WORK AND TERMINATION</u>. Client may, at any time, suspend further work by Haley & Aldrich or terminate this Agreement. Suspension or termination shall be by written notice effective three (3) business days after receipt by Haley & Aldrich. Client agrees to compensate Haley & Aldrich for all services performed and commitments made prior to the effective date of the suspension or termination, together with reimbursable expenses including those of subcontractors, subconsultants, and vendors. Client acknowledges that its failure to pay all invoices on time and in full, including accrued interest, may result in a suspension of services by Haley & Aldrich. In the event of a suspension of services due to Client's failure to pay all invoices on time and in full, Haley & Aldrich shall have no liability to Client for delay or damage to Client or others because of such suspension of services.
- 10. <u>FORCE MAJEURE</u>. Except for Client's obligation to pay for services rendered, no liability will attach to either party from delay in performance or nonperformance caused by circumstances or events beyond the reasonable control of the party affected, including, but not limited to, acts of God, fire, flood, unanticipated Site or subsurface conditions, pandemics, explosion, war, terrorism, request or intervention of a governmental authority (foreign or domestic), court order (whether at law or in equity), labor relations, accidents, delays or inability to obtain materials, equipment, fuel or transportation.
- 11. <u>SUBSURFACE RISKS</u>. Client shall disclose to Haley & Aldrich any known or suspected subsurface conditions, below ground structures, and information related to hazardous materials or other environmental or geotechnical conditions at the Site. Client recognizes that inherent risks occur in the exploration and evaluation of subsurface conditions. Even with the information the Client provides to Haley & Aldrich and a comprehensive sampling, testing and exploration program performed in accordance with the Standard of Care, certain underlying conditions and/or structures may not be identified, and Client agrees to accept this level of risk. Client agrees to indemnify and hold Haley & Aldrich, and each of their subcontractors, consultants, officers, directors, and employees (Haley & Aldrich) harmless against any and all claims, losses, liabilities or damages, direct or consequential, related to interference with subterranean structures, or other such subsurface conditions, substances, or features that are not called to Haley & Aldrich's attention in writing, shown on documents provided by Client, or could not be reasonably detected by exercising the Standard of Care.

12. HAZARDS AND HAZARDOUS MATERIALS.

12.1 Disclosure of Hazards (Right to Know). Haley & Aldrich will take reasonable precautions for the health and safety of Haley & Aldrich's employees while at the Site. Client will obtain from Site owner, and others as applicable, and furnish to Haley & Aldrich, prior to Haley & Aldrich beginning services under this Agreement, all available information concerning Site conditions, including, but not limited to: subsurface conditions, oil, hazardous material, toxic mold and biological conditions, radioactive or asbestos material in, on or near the Site. If such a material or condition is discovered that had not been disclosed to Haley & Aldrich, then, upon notification, Client and Haley & Aldrich shall seek an equitable adjustment to be made to this Agreement. By authorizing Haley & Aldrich to proceed with the services, Client confirms that Haley & Aldrich has not created nor contributed to the presence of any hazardous substances at or near the Site. Client agrees to assume all liability and shall indemnify, defend and hold Haley & Aldrich harmless from any claims, losses, liabilities or damages arising out of (1) personal injury or death resulting from such hazardous material or condition and/or (2) a release of hazardous substances except to the extent the release was caused by Haley & Aldrich's gross negligence or willful misconduct in the performance of the services.

12.2 Hazardous Materials. Before any hazardous or contaminated materials are removed from the Site, Client shall sign manifests naming Client as the Generator of the waste (or, if Client is not the Generator, Client will arrange for the Generator to sign the manifest). Client shall select the treatment or disposal facility to which any waste is taken. Haley & Aldrich shall not be the Generator, Owner, Arranger, Operator, nor will it possess, take title to, or assume any legal liability for any hazardous or contaminated materials at or removed from the Site. Haley & Aldrich shall not have responsibility for or control of the Site or of operations or activities at the Site other than its own. Haley & Aldrich shall not undertake, arrange for or control the handling, treatment, storage, disposal, removal, shipment, transportation or disposal of any hazardous or contaminated materials at or removed from the Site, other than laboratory samples it collects or tests (which shall be returned to Client for disposal). Client agrees to defend, indemnify and hold harmless Haley & Aldrich for any costs or liability incurred by Haley & Aldrich in defense of or in payment for any legal actions in which it is alleged that Haley & Aldrich is the Owner, Operator, Generator, Arranger, Treater, Storer or Disposer of hazardous waste. Capitalized terms used herein shall have the meanings assigned to them in RCRA and CERCLA.

13. <u>DIFFERING SITE CONDITIONS</u>. If, during the course of performance of this Agreement, conditions or circumstances are discovered, which were not contemplated or anticipated by Haley & Aldrich, or otherwise provided to Haley & Aldrich by the Client, at the commencement of this Agreement or which differ materially from those indicated in Haley & Aldrich's Proposal, Haley & Aldrich may notify Client in writing of the newly discovered conditions or circumstances, and Client and



Standard Terms and Conditions 2020

Haley & Aldrich shall renegotiate, in good faith, the scope of work and terms and conditions of this Agreement. If amended terms and conditions cannot be agreed upon within thirty (30) days after notice, Haley & Aldrich may terminate this Agreement.

- 14. <u>SAMPLES</u>. Samples of soil, rock, water, waste, or other materials collected from the Site may be disposed of sixty (60) days from sampling date unless Client advises otherwise in writing or unless applicable law requires their retention. Haley & Aldrich will dispose of such samples with a qualified waste disposal contractor. Client shall pay all costs associated with the storage, transport, and disposal of samples, and agrees to indemnify, defend and hold Haley & Aldrich harmless for any liability arising therefrom. If samples must be stored by Haley & Aldrich for longer than sixty (60) days from sampling date, Client shall pay all associated storage costs. Client recognizes and agrees that Haley & Aldrich is a bailee and assumes neither title to said waste or samples nor any responsibility as generator of said waste or samples.
- 15. <u>ENGINEERING/CONSULTING SERVICES DURING CONSTRUCTION</u>. Haley & Aldrich shall not, during construction Site visits, shop drawing review, or as a result of observations of construction work, supervise, direct, or have control over any contractors' means, methods, work sequences or procedures of construction selected by contractors. Haley & Aldrich shall not be liable for any of contractors' work, safety precautions or programs incident to contractors' work. Haley & Aldrich shall not have any liability whatsoever for any failure of contractors to comply with any laws, rules, regulations, ordinances, codes or orders. Haley & Aldrich neither guarantees nor warrants the performance of any contractors' work and does not assume responsibility for any contractors' failure to furnish any labor, materials, equipment or related work in accordance with any agreement or contract documents.
- 16. <u>ADDITIONAL SERVICES</u>. Haley & Aldrich's compensation hereunder shall be subject to adjustment to recognize any increase in costs due to additional services requested or authorized by Client. Such additional services shall include, but not be limited to, additions in the manner or method of Haley & Aldrich's performance of Services or due to changes in schedule or circumstances not solely caused by or under the control of Haley & Aldrich. These additional services shall be verified in writing by the parties and performed on the basis of mutually agreed rates, or other such basis agreed to by the parties.
- 17. WAIVER OF CONSEQUENTIAL DAMAGES. Neither party, nor their parent, affiliated or subsidiary companies, nor the officers, directors, agents, employees, or contractors of any of the foregoing, shall be liable to the other in any action or claim for incidental, indirect, special, collateral, punitive, exemplary or consequential damages arising out of or related to the services, whether the action in which recovery of damages is sought is based upon contract, tort (including, to the greatest extent permitted by law, the sole, concurrent or other negligence, whether active or passive, and strict liability of any protected individual or entity), statute or otherwise.
- 18. <u>WAIVER OF PERSONAL LIABILITY</u>. No officer, director, or employee of Haley & Aldrich shall bear any personal liability to Client for any injuries, claims, demands, losses, expenses or damages, of whatever kind or character, arising out of or in any way related to this Agreement or the performance of services hereunder.
- 19. <u>LIMITATION OF REMEDIES</u>. To the fullest extent permitted by law, the total aggregate liability of Haley & Aldrich, its officers, directors, and employees to Client, and anyone claiming by, through, or under Client, including all authorized Relying Parties, as applicable, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to Haley & Aldrich's services, from any cause or causes whatsoever, including, but not limited to, negligence, errors, omissions, strict liability or contract, shall be limited to an aggregate amount of \$50,000 or Haley & Aldrich's fee, whichever is greater.

If Client prefers not to limit Haley & Aldrich's liability to this sum, Haley & Aldrich may increase this limitation upon Client's written request, provided that Client agrees to pay an additional fee agreed to by the parties. The additional fee is for the additional risk assumed by Haley & Aldrich and is not a charge for additional liability insurance.

- 20. <u>DISPUTE RESOLUTION</u>. If a dispute arises out of or relates to this Agreement or the breach thereof, the parties will attempt in good faith to resolve the dispute through negotiation. Except for payment matters, if a dispute is not resolved by these negotiations, the matter will be submitted to non-binding mediation with a mutually agreed upon mediator. The parties agree that they will participate in the mediation in good faith and that they will share equally in its costs. Except for payment matters or to preserve mechanics' lien rights, neither party will commence a civil action until after the completion of an initial mediation session.
- 21. <u>LEGAL ACTION</u>. All legal actions by either party against the other for any cause or causes, including, but not limited to, breach of this Agreement, negligence, misrepresentations, breach of warranty or failure to perform in accordance with the



Standard Terms and Conditions 2020

Standard of Care, however denominated, shall be barred two (2) years from the day after completion of Haley & Aldrich's Services. Client agrees to compensate Haley & Aldrich for services performed in response to any legal action, subpoena, or court order arising out of or related to Haley & Aldrich's services under this Agreement at Haley & Aldrich's Standard Fee Schedule then in effect.

- 22. <u>TAXES</u>. Unless otherwise provided for in the scope of services, Haley & Aldrich's fee is exclusive of sales, use, or similar tax imposed by taxing jurisdictions on the amount of fees or services. Should such taxes be imposed, Haley & Aldrich will collect and remit any applicable sales taxes. Client's documentation of exemption from sales or use taxes, if any, must be provided to Haley & Aldrich prior to services being performed.
- 23. <u>SEVERABILITY</u>. If any of these Terms and Conditions are finally determined to be invalid or unenforceable in whole or part, the remaining provisions shall remain in full force and effect and be binding upon the parties. The parties agree to reform these Terms and Conditions to replace any such invalid or unenforceable provision with a valid and enforceable provision that comes as close as possible to the intention of the stricken provision.
- 24. <u>SURVIVAL</u>. All Terms and Conditions contained herein shall survive the completion of Haley & Aldrich's services on this project or the termination of services for any cause.
- 25. <u>GOVERNING LAW AND JURISDICTION</u>. This Agreement shall be solely governed, and construed and enforced, in accordance with the laws of the State or Commonwealth where the services are performed, without regard to its conflict of laws rules. Client agrees to submit and consent to the jurisdiction of the courts in that State or Commonwealth in any action brought to enforce (or otherwise arising from or relating to) this Agreement.
- 26. <u>ASSIGNMENT</u>. This Agreement shall not be assigned by either party without the express written consent of the other.
- 27. <u>PRECEDENCE.</u> These Terms and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice to proceed, right of entry, or like document.
- 28. <u>ENTIRE AGREEMENT</u>. Client and Haley & Aldrich agree that all provisions of these Terms and Conditions were mutually negotiated and agreed upon, and that this Agreement represents the entire Agreement between the parties. No modification or alteration of any provision of this Agreement shall be binding upon either Client or Haley & Aldrich, unless such modification or alteration is mutually agreed to, is in writing, and is signed by the party against whom such modification or alteration is sought to be enforced.

END OF TERMS AND CONDITIONS



FEES FOR SERVICES

Fees for services will be based on the time worked on the project by staff personnel plus reimbursable expenses. The fee will be computed as follows.

1. Labor related fees will be computed based on personnel billing rates in effect at the time the services are performed. Personnel billing rates are subject to revision on, or about, 1 January and 1 July of each year. The hourly rates are fully inclusive of fringe benefits, burden, and fee. Current rates are provided in the table below.

Classification	Hourly Rate
Project Support	\$115
Technician	\$110
Project Technician	\$120
Senior Technician	\$135
Project Controls	\$140
Staff Professional 1	\$125
Staff Professional 2	\$150
Project Professional	\$165
Technical Specialist / Modeler	\$170
Project Manager / Senior Technical Specialist	\$200
Senior Project Manager / Technical Expert	\$235
Program Manager / Senior Technical Expert / Principal	\$270
Senior Principal	\$305

- 2. Pre-trial conferences, depositions, and expert testimony will be billed at one and one-half (1.5) times the rates quoted above.
- 3. Second and Third Shift, Weekend, and Holiday hours will be billed at \$40/hour premium. Second and Third Shifts are those starting between 4 PM and 4 AM.
- 4. Field visits will be billed at 4-hour minimum; night shifts will be billed at 8-hour minimum. Cancellation of scheduled night shift within 24 hours will be charged the full 8 hours.
- 5. Direct non-salary expenses will be billed at our cost plus fifteen (15) percent, except for employee vehicle use which will be billed at IRS allowed mileage rates.
- 6. General project-related expenses such as mobile phone expenses (including mobile app fees); in-house reproduction; printing costs for reports, drawings, and other project records; mail and overnight document delivery; and long-term electronic and paper document storage will be billed as a general communication fee at a rate of four (4) percent of the labor charges.
- 7. Subcontractors will be billed at our cost plus fifteen (15) percent.
- 8. Equipment and laboratory testing will be billed at rates listed in the attached Equipment and Laboratory Rate Schedules, as applicable.



Equipment Rate Schedule 2022 PNW Page 1 of 2

EQUIPMENT RATE SCHEDULE

AIR MONITORING EQUIPMENT	Daily	Weekly	Monthly
Drager/Rae Sampling Kit (tubes not included)	\$10	\$40	\$120
Dust Monitor	\$100	\$400	\$1,200
Four-Gas Meter	\$43	\$172	\$516
Photoionization Detector - 10.6 or 11.7 eV	\$70	\$280	\$840
FIELD TESTING	Daily	Weekly	Monthly
Double Ring Infiltrometer	\$250		
Field Supplies	\$28	\$112	\$448
Guelph Permeameter	\$150		
Inclinometer Readings	\$250		
Sand Cone Field Density Kit	\$75	\$225	\$725
pH Meter	\$15	\$60	\$180
Pile Load Testing (per test)	\$1,500		
Plate Load Tester (per day)	\$50		
Pit Box Test (per day)	\$400		
Slug Test Kit (per day)	\$350		
Wood Pile Load Testing (per test)	\$250		
SAMPLING EQUIPMENT	Daily	Weekly	Monthly
Groundwater Sampling Bundle with Bladder Pump	\$315	\$1,000	\$3,000
Groundwater Sampling Bundle with Peristaltic Pump	\$250	\$750	\$2,100
Groundwater Sampling Bundle with Grundfos Pump	\$350	\$1,100	\$3,100
Rotohammer Drill	\$100	\$400	
Soil Sampling or Tank Pull Equipment Bundle	\$150	\$350	\$1,050
Soil Vapor Sampling Bundle	\$400	\$1,400	\$2,600
Turbidity Meter	\$20	\$80	\$240
YSI Meter with Flow Cell	\$100	\$400	\$1,200
WATER LEVEL METERS AND INTERFACE PROBES	Daily	Weekly	Monthly
Barologger	\$10	\$40	\$120
Levelogger	\$25	\$100	\$300
Oil/Water Interface Probe	\$50	\$200	\$600
Water Level Indicator	\$20	\$80	\$240
GEOTECHNICAL INSTRUMENTATION	Daily	Weekly	Monthly
Cone Penetrometer	\$15	\$60	\$180
Dynamic Cone Penetrometer	\$150		
Electronic Readout Box	\$25	\$100	\$300
In-Place Inclinometer Rental			\$1,250
Nuclear Density Gauge	\$100	\$300	\$900
Power System - Battery	\$5	\$20	\$60
Power System - Solar	\$15	\$60	\$180
Seismograph - Manual	\$75	\$225	\$725
Seismograph - Remote Units	\$100	\$275	\$825
Vibration and Sound Monitoring Station	\$125	\$325	\$925



Equipment Rate Schedule 2022 PNW Page 2 of 2

EQUIPMENT RATE SCHEDULE (continued)

MISCELLANEOUS	Daily	Weekly	Monthly
Camera - Digital	\$10		
Decontamination Kit (each)	\$50		
Drone	\$250	\$1,000	
Field Truck (including fuel)	<i>\$95</i>	\$380	\$1,140
Generator	\$50	\$200	\$600
GeoTech Sample Jars 16 oz. (per box)	\$10		
GPS Unit	\$150	\$600	\$1,800
Harness with Restraint Lanyard	\$40	\$160	\$480
Motorola CP200d Radio (pair)		\$35	\$140
Personal Protective Equipment - Level C (per person)	\$45		
R/V Catalyst - 26 Ft Sampling Vessel	\$600		
Research Nets	\$60		
Sampling Tubing (roll)	\$20		
Saximeter II	\$35	\$140	\$420
Sound Level Meter	\$50	\$200	\$600
Tool Trailer	\$300		

ALDRICH

LABORATORY RATE SCHEDULE

SOIL CLASSIFICATION AND INDEX TESTS	Unit Price
Atterberg Limits - 1 Point	\$125
Atterberg Limits - 3 Point	\$180
Grain Size - Hydrometer and Sieve Analysis	\$300
Grain Size - 200 Wash	\$100
Grain Size- Sieve Analysis (Standard Sample)	\$125
Grain Size - Sieve Analysis (Bulk Sample)	\$150
Grain Size - Hydrometer	\$175
Water Content	\$25
Organic Content	\$75
Specific Gravity	\$125
Visual Classification	\$15
SOIL MOISTURE-DENSITY TESTS	Unit Price
Bulk Density	\$100
California Bearing Ratio (CBR)	\$650
Proctor - 1 Point	\$120
Proctor - 4 Point	\$250
Proctor - 4 Point (Cohesive Soil)	\$300
SOIL CONSOLIDATION AND STRENGTH TESTS	Unit Price
Consolidation - Constant Rate of Strain (CRS)	\$650
Consolidation - Incremental	\$500
Unconfined Compression	\$100
Direct Simple Shear (DSS)	\$300
Cyclic Direct Simple Shear (CDSS)	\$650
Triaxial Compression - Isotropic Consolidation	\$500
Triaxial Compression - Ko/anisotropic Consolidation	\$800
Triaxial Compression - Unconsolidated	\$300
SURCHARGE RATES	Unit Price
Atterberg Limits Dry Prep	\$15
Atterberg Limits Organic Classification	\$40
Sample Preparation	\$120
Triaxial High Pressure (over 100 psi)	\$100
Tube Cut (per cut)	\$25
Tube Extrusion	\$100

Additional H&A Laboratory analyses, pricing, and rush rates available upon request.