

**INTERIM CONSENT AGREEMENT**  
**NEVADA ENVIRONMENTAL RESPONSE TRUST**

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## INTERIM CONSENT AGREEMENT

This Interim Consent Agreement (the "Consent Agreement") is made and entered into by and between the State of Nevada, Department of Conservation and Natural Resources, Division of Environmental Protection ("NDEP" or the "Division") and the Nevada Environmental Response Trust ("NERT" or the "Trust"). The Trust and the Division are referred to collectively herein as the "Parties."

**WHEREAS**, on January 12, 2009, Tronox Incorporated ("Tronox Inc.") and fourteen of its affiliates, including Tronox LLC (collectively, the "Tronox Debtors"), filed petitions with the United States Bankruptcy Court for the Southern District of New York ("Bankruptcy Court") under chapter 11 of the United States Bankruptcy Code ("Tronox Bankruptcy Proceeding"), in Case No. 09-10156.

**WHEREAS**, as of the date of the initiation of the Tronox Bankruptcy Proceeding and continuing until the Reorganization Plan Effective Date (defined below), Tronox LLC was an obligor in its own right, or as successor in interest to Kerr McGee Chemical Corporation ("KMCC"), under the following consent orders or agreements with the Division, pertaining to the investigation, mitigation, remediation or other response to the presence or release of pollutants, contaminants, hazardous waste, hazardous constituents, regulated substances, or hazardous substances (including without limitation perchlorate and chlorate compounds) in or into the environment at, on or below the Henderson Property (defined below), or migrating from the Henderson Property (collectively, the "Henderson Property Consent Agreements"):

- a. September 9, 1986 Consent Order between the Division and KMCC, requiring corrective action for chromium contaminants. As of the Reorganized Plan Effective Date, Tronox, LLC had completed all requirements in the 1986 Consent Order.
- b. April 25, 1991 Consent Agreement between Consent Agreement between the Division and KMCC, Montrose Chemical Corporation of California, Inc., Pioneer

Chlor Alkali Company, Inc., Stauffer Management Company, Inc. and Titanium Metals Corporation, (collectively, the "BMI Companies"), requiring environmental conditions assessments of the BMI Complex (defined below), the individual company sites, including the Henderson Property, common disposal areas in the BMI Complex, and any off-site waste management areas (the "Phase 1 AOC"). As of the Reorganized Plan Effective Date, KMCC or its successor, Tronox, LLC, had completed all requirements of the Phase I AOC.

- c. August 1, 1996 Consent Agreement between the Division and KMCC requiring the evaluation and characterization of the nature and extent of releases of environmental contaminants within or associated with the Henderson Property in a manner consistent with applicable federal and Nevada statutes, implementing regulations, the National Contingency Plan (the "Phase 2 AOC"); The Phase 2 AOC contemplates the execution of a Phase 3 AOC for the Henderson Property to identify and implement appropriate remedial measures to address environmental conditions identified in the Phases 1 and 2. As of the Reorganized Plan Effective Date, Tronox, LLC had completed the Environmental Conditions Investigation Work Plans (Phase A and Phase B) and the Phase A Environmental Conditions Investigation Report. Additionally, Tronox, LLC installed an interim groundwater remediation system per the conditions set forth in this AOC. The following documents required in the Phase 2 AOC that have to date not been completed are: Phase B Environmental Conditions Investigation Report, Feasibility Study (FS), Remedial Alternatives Study (RAS) Work Plan, Implementation Schedule for the RAS Work Plan, and RAS Report
- d. July 26, 1999 Consent Agreement between the Division and Kerr-McGee Chemical LLC requiring the performance of certain expedited perchlorate removal actions in the vicinity of a seep surfacing north of the BMI lower ponds and adjacent to the Las Vegas Wash in a manner consistent with applicable federal and Nevada statutes, implementing regulations, and with the National Contingency Plan. As of the Reorganized Plan Effective Date, Tronox LLC had completed all requirements of the 1999 Consent Agreement.
- e. October 8, 2001 Administrative Order on Consent between the Division and Kerr-McGee Chemical LLC requiring the installation of several interim remedial actions for perchlorate in groundwater in a manner consistent with applicable federal and Nevada statutes, implementing regulations, and with the National Contingency Plan. As of the Reorganized Plan Effective Date, Tronox LLC had completed all requirements of the 2001 Administrative Order on Consent.
- f. April 12, 2005 Administrative Order on Consent between the Division and Kerr McGee Chemical LLC requiring the continued performance of perchlorate remedial actions, the treatment of certain impoundment perchlorate residues, and the clarification of perchlorate-related groundwater cleanup obligations, such work to be performed in a manner consistent with applicable federal and Nevada statutes, implementing regulations, and with the National Contingency Plan. As of the Reorganized Plan Effective Date, Tronox LLC had completed the pilot testing and installation of an additional bioreactor to the existing remediation system for the treatment of perchlorate from Pond AP-5. The 2005 Administrative Order on

Consent also required the complete decommissioning of Pond AP-5 within 5 years of implementation of the additional bioreactor. To date, the decommissioning of AP-5 has not been completed.

**WHEREAS**, during the pendency of the Tronox Bankruptcy Proceeding, on December 14, 2009, the Division issued to Tronox, LLC a Finding of Alleged Violation and Order requiring Tronox, LLC to comply with the obligations pertaining to the Henderson Property under the Henderson Property Consent Agreements and setting forth a specified schedule for such compliance (the "2009 Division Order").

**WHEREAS**, the Tronox Debtors, the United States, the State of Nevada, the Trust and certain other parties entered into a Consent Decree and Environmental Settlement Agreement which was approved by the Bankruptcy Court, as amended, on February 14, 2011 (the "Settlement Agreement") and became effective, together with the Tronox Debtors' Plan of Reorganization, on February 14, 2011 by order of the Bankruptcy Court ("Reorganization Plan Effective Date").

**WHEREAS**, the Tronox Debtors, the United States, the State of Nevada, and the Trust entered into an Environmental Response Trust Agreement ("NERT Agreement") which was approved by the Bankruptcy Court on February 14, 2011 and became effective on the Reorganization Plan Effective Date.

**WHEREAS**, the Settlement Agreement and the NERT Agreement provide for, in part:

(a) the transfer of the Henderson Property to the Trust to be administered pursuant to the NERT Agreement and the Settlement Agreement; (b) the carrying out of administrative and property management functions related to the Henderson Property, including the lease of the operations facility to Reorganized Tronox; and (c) the managing and/or funding of the implementation of Environmental Actions (defined below) for the Henderson Legacy Conditions (defined below).

that are approved by the Division and the payment of certain future oversight costs of the Division and the EPA; (d) the acting by the Trust as substituted party for Tronox LLC under the 2006 Henderson Consent Decree (defined below) as more specifically provided in such 2006 Henderson Consent Decree, Paragraph 73 of the Settlement Agreement, and the 2006 Henderson Consent Decree Substitution and Clarification Agreement (defined below); and (e) the funding of the obligations of the Trust arising under the Settlement Agreement and the NERT Agreement.

**WHEREAS**, the Settlement Agreement and the NERT Agreement provide for, or otherwise contemplate, the transfer of limited assets or monies to be used by the Trust in performing its obligations under the Settlement Agreement and the NERT Agreement (collectively, "NERT Funding"), including but not limited to (a) cash transferred to the NERT on the Reorganization Plan Effective Date in the amount of \$81,020,018; (b) proceeds from the sale, lease or other disposition of all or any portion of the Henderson Property; and (c) payments received from the United States for Future Response Costs pursuant to, and as defined by, the 2006 Henderson Consent Decree and the 2006 Henderson Consent Decree Substitution and Clarification Agreement.

**WHEREAS**, pursuant to Paragraph 133 of the Settlement Agreement, as of the Reorganization Plan Effective Date, all obligations of the Tronox Debtors, including Tronox LLC, to perform work pursuant to any of the Henderson Property Consent Agreements or the 2009 Division Order were deemed fully resolved and satisfied in accordance with the terms set forth in such Paragraph 133.

**WHEREAS**, the Division finds that the work performed by or on behalf of Tronox, LLC pursuant to the Henderson Property Consent Agreements and the 2009 Division Order (the "Tronox Work") was planned, defined and implemented consistent with applicable federal and

Nevada statutes, implementing regulations, and with the National Contingency Plan. The Action Memorandum: Removal and Long-Term Actions, Nevada Environmental Response Trust Site, Clark County, Nevada, dated July 21, 2011, attached hereto as Exhibit A, documents the threats to the Environment at the Henderson Property and the interim actions taken to date.

**WHEREAS**, certain of the work contemplated by the Henderson Property Consent Agreements and the 2009 Division Order remains either ongoing or unfinished, and such work must be transitioned to the Trust as required Environmental Actions pursuant to the Settlement Agreement (“Trust Work”).

**WHEREAS**, in approving the budget or requests for funding for Environmental Actions associated with the Henderson Legacy Conditions as required under the Settlement Agreement, and in defining the specific Trust Work required to be performed or funded by the Trust, the Division necessarily must employ a targeted and phased oversight and management approach that: (a) appropriately takes into consideration the contingencies associated with certain of the NERT Funding; (b) ensures the continued uninterrupted operation of ongoing interim response actions, particularly the groundwater intercept and treatment systems noted above; (c) requires the periodic review of the performance of such interim response actions to determine whether existing interim actions remain protective of human health and the environment, or whether alternative more cost-effective proven technologies are commercially available and should be evaluated and/or implemented with respect to Henderson Legacy Conditions; (d) achieves the development and implementation of remedial actions for Henderson Legacy Conditions that are protective of human health and the environment; (e) prioritizes such remedial actions; and (f) employs, to the extent appropriate as determined by the Division, the cost-effective phased use of interim institutional controls pending (x) access to Henderson Legacy Conditions that may be



limited by ongoing manufacturing and related operations at facilities located at the Henderson Property, and (y) the availability of sufficient NERT Funding to evaluate and select remedial actions that may achieve unlimited land uses and unrestricted exposure to the Henderson Legacy Conditions.

**WHEREAS**, the NERT Funding to be reimbursed by the United States pursuant to the 2006 Henderson Consent Decree and the 2006 Henderson Consent Decree Substitution and Clarification Agreement was a critical consideration to the State of Nevada in entering into the Settlement Agreement.

**WHEREAS**, the 2006 Henderson Consent Decree and the 2006 Henderson Consent Decree Substitution and Clarification Agreement require that response costs eligible for reimbursement be incurred by the Trust consistent with the National Contingency Plan and, therefore, the Division and the Trust agree that all Trust Work shall be undertaken in a manner consistent with applicable federal and Nevada statutes, implementing regulations, and with the National Contingency Plan, consistent with the work performed historically under the Henderson Property Consent Agreements and the 2009 Division Order.

**WHEREAS**, the Trust Work as outlined in the attached Scope of Work (“SOW”) includes interim ongoing response actions that must continue to be implemented by the Trust as Environmental Actions pursuant to the Settlement Agreement to ensure the continued protection of human health and the environment including, without limitation, the ongoing operation of the perchlorate- and chromium-related groundwater intercept and treatment systems developed and implemented pursuant to the Henderson Property Consent Agreements.

**WHEREAS**, the Division is designated as the State water pollution control agency for Nevada and is empowered to administer and enforce the Nevada Water Pollution Control Law,

Nevada Revised Statutes ("NRS") §§ 445A.300 to 445A.730, inclusive, and its implementing regulations set forth in Nevada Administrative Code (NAC) Chapter 445A

**WHEREAS**, the Division is designated as the State agency for the regulation of hazardous waste and is empowered to administer and enforce the Nevada Hazardous Waste Disposal Law, NRS §§ 459.400 to 459.600, inclusive, and its implementing regulations set forth at NAC §§ 444.965 to 444.976.

**WHEREAS**, the Trust is a special purpose non-commercial custodial environmental response trust created under the United States Bankruptcy Code and vested with finite or otherwise contingent funding resources to perform the Trust Work.

**WHEREAS**, the Trustee is empowered under Paragraph 156 of the Settlement Agreement and Section 2.4.2 of the NERT Agreement to enter into consent decrees or consent orders with the United States and the State of Nevada, and may perform required Environmental Actions pursuant to unilateral administrative orders issued by the Division or the EPA.

**WHEREAS**, the Trust desires to cooperate fully with the Division to perform the Trust Work and is empowered under Paragraph 156 of the Settlement Agreement and Section 2.4.2 of the NERT Agreement to enter into consent decrees with the Division; and

**WHEREAS**, the Division and the Trust have agreed to enter into this Consent Agreement regarding such Trust Work, pending execution of a Phase 3 Administrative Order on Consent to guide the implementation of appropriate remedial measures to address environmental conditions identified in Phases 1 and 2.

**NOW, THEREFORE**, in consideration of and in exchange for the mutual undertakings and covenants herein, and intending to be legally bound hereby, the Division and the Trust agree as follows:

## I. DEFINITIONS

The following terms shall have the meanings specified for purposes of this Consent Agreement:

1. Administrator means the Administrator of the Nevada Division of Environmental Protection.
2. BMI Complex means the Black Mountain Industrial Complex located in Clark County, Nevada, and includes all land, structures, other appurtenances and improvements on the land owned or operated as of April 15, 1993 by the BMI Companies or any of them.
3. Consent Agreement means this Interim Consent Agreement and includes all attachments, Division-approved work plans (including schedules and attachments), Division-approved Deliverables, amendments, modifications and items incorporated by reference as provided in Section XXVII (Incorporation and Enforceability of Referenced Materials).
4. Contractor means any entity or person, including any contractor, subcontractor, consultant, firm or laboratory, retained by the Trust or the Division to conduct or monitor any portion of the work performed pursuant to this Consent Agreement.
5. Corrective Action means those activities, except for Operation and Maintenance, to be undertaken by the Trust to implement the Scope of Work and other plans approved by the Division as part of the Trust Work and designed to provide a long-term response to minimize the potential exposure to Environmental Contaminants.
6. Corrective Action Standards means the cleanup standards and other measures that, when met, reflect achievement of the goals of the Corrective Action as approved by the Division.

7. Deliverable means, without limitation, any work plan, report, progress report, plan, data, document, information, submittal, obligation or work which the Trust is required to submit to the Division under the terms of this Consent Agreement.
8. Division means the State of Nevada, Department of Conservation and Natural Resources, Division of Environmental Protection, or its successor department or agency of the State of Nevada.
9. Effective Date means February 14, 2011.
10. Effective Period of this Consent Agreement means the period of time between the Effective Date and the date upon which this Consent Agreement terminates as specified in Section XXVIII (Termination).
11. Environment means air, land (including subsurface strata), and water (including groundwater) or any combination or part thereof.
12. Environmental Actions means any and all environmental activities authorized or required under Environmental Law that occur after the Effective Date and that are related to the Henderson Property, including but not limited to response or remedial actions, removal actions, corrective action, closure, or post-closure care, reclamation, investigations, studies, remediation, interim actions, final actions, emergency actions, water treatment, implementation of engineered structures and controls, monitoring, repair and replacement of engineered structures, monitoring equipment and controls, operation and maintenance, implementation, operation and maintenance of institutional controls, coordination and integration of reuse and remedial efforts and initiatives (including, without limitation, multi-stakeholder communications), and, if required, long-term stewardship and perpetual custodial care activities. "Environmental Actions" also include the above environmental activities relating to the migration of hazardous substances emanating from

the Henderson Property. "Environmental Actions" shall not include natural resource assessment or restoration.

13. Environmental Contaminant means any element, compound, mixture, solution or substance, the Release of which may present a substantial endangerment to human health, welfare, or the Environment regulated by the Division under any applicable Environmental Law including, without limitation, any "solid waste," "hazardous waste," "hazardous constituent," "hazardous substance," "regulated substance," "pollutant," "contaminant," "radioactive material," "air contaminant," "imminently hazardous chemical substance or mixture," "hazardous material," or other substance so defined by any applicable Environmental Law.

14. Environmental Law means each federal and state law and regulation relating in any way to pollution of the Environment or the protection of the Environment or the Release of any Environmental Contaminant into the Environment including, without limitation, the Nevada Water Pollution Control Law, NRS §§ 445A.300 to 445A.730, the Nevada Solid Waste Disposal Law, NRS §§ 444.440 to 444.645, the Nevada Hazardous Waste Disposal Law, NRS §§ 459.400 to 459.600, the Nevada Air Pollution Control Law, NRS §§ 445B.100 to 445B.640, the Nevada Underground Storage Tank Law, NRS §§ 459.800 to 459.856, the Clean Air Act, 42 U.S.C. §§ 7401~7671q, the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1387, the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992k, the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675, and the Toxic Substances Control Act, 15 U.S.C. §§ 2601-2692, each as may be amended from time to time, and including the implementing regulations promulgated respectively thereunder.

15. EPA means the United States Environmental Protection Agency or its successor department or agency.

16. 2006 Henderson Consent Decree shall mean the Consent Decree between Tronox LLC, as successor to Kerr-McGee Chemical LLC and Kerr-McGee Chemical Corporation and the United States of America, entered on January 13, 2006 in Case No. 1:00CV01285 of the United States District Court for the District of Columbia, commonly known as *Tronox, LLC et al. v. The United States of America*.

17. 2006 Henderson Consent Decree Substitution and Clarification Agreement shall mean the agreement by the same title executed on February 14, 2011 by the United States of America, Tronox, LLC, the Trust, and the Division, and filed in Case No. 1:00CV01285 of the United States District Court for the District of Columbia, commonly known as *Tronox, LLC et al. v. The United States of America*.

18. Henderson Legacy Conditions shall mean the presence or release, prior to or on the Effective Date, of hazardous substances (including without limitation perchlorate and chlorate compounds) in or into the environment at, on or below any portion of the Henderson Property, including the presence in any environmental media of such released hazardous substances as a result of migration from any portion of the Henderson Property, whether before or after the Effective Date.

19. Henderson Property, also referred to herein as the "Site", shall mean the property owned by the Trust located in unincorporated Clark County and bordering the town of Henderson, Nevada, as more particularly defined in the Settlement Agreement.

20. Institutional Control means any non-engineered measure or instrument such as an administrative and/or legal control (e.g. covenant, easement, well drilling prohibition, deed

restriction, title recordation, and servitude) required by the Division that minimizes the potential for exposure to humans and the Environment to Environmental Contaminants by limiting land or resource use. Institutional Controls include Environmental Covenants as defined and implemented pursuant to NRS Chapter 445D.

21. Key Project Personnel means those individuals who have primary responsibility for the direction of employees or subcontract personnel for major project tasks, outputs or Deliverables including, but not limited to, data collection, data interpretation and report writing.

22. NAC means the Nevada Administrative Code or its successor codification of rules and regulations.

23. NCP means the National Contingency Plan, which is codified at 40 C.F.R. § Part 300 and is referenced in CERCLA section 107(a) (4) (B), 42 U.S.C. § 9607(a) (4) (B).

24. Nevada Trust Environmental Cost Account shall have the meaning given in Section 2.1.10 of the NERT Agreement.

25. NRS means the Nevada Revised Statutes or its successor codification.

26. Receptor means any appropriate and representative population, community or habitat of any biological organism (including humans, animals and plants) which is or may be affected by Releases of Environmental Contaminants at or associated with the Henderson Property.

27. Release means any past or present spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, migrating, dumping, or disposing of any Environmental Contaminant into the Environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any Environmental Contaminant).

28. State means the State of Nevada, including, as appropriate, its agencies, departments, political subdivisions, agents and employees.

29. Sub Area means any area on or off the Site that has been impacted by Environmental Contaminants originating from the Site that may be considered hydrologically, geographically, or otherwise separate from other areas of the Site.

## **II. STATEMENT OF PURPOSE**

1. In entering into this Consent Agreement, the mutual objectives of the Division and the Trust are (1) to perform the Trust Work that is ongoing or remains unfinished; (2) to transition the Henderson Property to Phase 3 – implementation of appropriate remedial actions to address environmental conditions identified in the Phase 1 AOC and the Phase 2 AOC; and (3) to provide for reimbursement to the Division of the Trust's fair share of oversight costs incurred by the Division.

2. The Parties intend that the Trust Work be performed in accordance with Section IV (Work To Be Performed), including all approved work plans, be accepted by the Division and be consistent with the National Contingency Plan.

## **III. PARTIES BOUND**

1. The provisions of this Consent Agreement shall apply to and be binding upon the Division, including the Department of Conservation and Natural Resources (the "Department"), and upon the Trust, its successors and assigns.

2. The Trust shall provide a copy of this Consent Agreement to all Contractors retained by it to conduct or monitor any portion of the work performed under this Consent Agreement. The Trust shall use best efforts to cause such persons or entities to comply with the terms of this Consent Agreement

3. The Trust agrees to undertake all actions required by the terms and conditions of this Consent Agreement, including any portions of this Consent Agreement that are incorporated by



reference and made enforceable hereunder as specified in Section XXVII (Incorporation and Enforceability of Referenced Materials). Notwithstanding the foregoing, or any other provision of this Consent Agreement, any obligations or liability of the Trust and its Trustee and their officers, directors, shareholders and employees is limited to the funds in the Nevada Environmental Cost Account and the terms and conditions and limitations contained in the Settlement Agreement or the NERT Agreement. Notwithstanding the foregoing, or any other provision of this Consent Agreement, any obligations of the Trust and its Trustee and their officers, directors, shareholders and employees, are not individual obligations, but solely in their representative capacity.

4. The undersigned representative of each Party to this Consent Agreement certifies that he or she is fully authorized by the Party whom he or she represents to enter into the terms and conditions of this Consent Agreement and to execute and legally bind that Party to it.

#### **IV. WORK TO BE PERFORMED**

1. The Trust agrees to perform the Trust Work specified in this Consent Agreement in the manner and by the dates specified within the Scope of Work ("SOW"), attached hereto as Exhibit B, as selected by the Division. The Trust Work shall be performed pursuant to the Division-approved work plans required hereunder, and in a manner consistent with all applicable federal and Nevada statutes and their implementing regulations, including all applicable Environmental Laws. Additionally, Trust Work will include the completion of excavation activities commenced by Tronox, LLC as approved by NDEP in the following work plans including subsequently submitted and approved errata:

a. *Removal Action Work Plan for Phase B Soil Remediation of Remediation Zones RZ-B through RZ-E (dated May 4, 2010).*

- b. *Revised Excavation Plan for Phase B Soil Remediation of RZ-B* (dated August 20, 2010).
- c. *Revised Excavation Plan for Phase B Soil Remediation of RZ-D* (dated August 31, 2010).
- d. *Revised Excavation Plan for Phase B Soil Remediation of RZ-C* (dated September 1, 2010).
- e. *Revised Excavation Plan for Phase B Soil Remediation of RZ-E* (dated November 3, 2010).

2. The Parties agree that all response actions conducted, selected and to be implemented under this AOC shall be consistent with the NCP, including but not limited to 40 C.F.R. § 300.430, and, as applicable, the provisions referenced in 40 C.F.R. § 300.700 for private party responses. The parties further agree that all work shall be conducted in order to result in a "CERCLA-quality cleanup" consistent with 40 CFR § 300.700(c)(3)(i).

## **V. DETERMINATION OF COMPLETION**

### **A. NO FURTHER ACTION**

1. If at any time the Trust believes that sampling results, the performance of other work or other circumstances demonstrate that, with respect to any portion of the Henderson Property, no further response actions are required or necessary to protect public health and the environment, the Trust may propose that such portion of the Henderson Property no longer be subject to the requirements of this Consent Agreement. If the Division agrees, the Division shall issue a written notice that the affected area is no longer subject to the requirements of this Consent Agreement and may be improved, sold, or otherwise conveyed without further adherence to the requirements of this Consent Agreement. The Division's disapproval of or failure to act upon

(within a reasonable time) a proposal made under this Section shall be subject to dispute resolution under Section XVI (Dispute Resolution).

2. In making any determination hereunder, the Division may consider within its statutory discretion any and all relevant factors including, without limitation:

a. existing and potential or planned land uses for such portion of the Henderson Property and environmental and human exposure threats associated therewith;

b. whether the issuance of such written notice would preclude or significantly and adversely affect the investigation or remediation of Environmental Contaminants at or associated with the BMI Complex, including the Henderson Property;

c. the sampling data or other information and circumstances relied upon by the Trust; and

d. applicable or relevant and appropriate environmental cleanup standards (including, without limitation, any Division policies regarding contaminated soil and groundwater remediation).

3. The issuance by the Division of a written exclusion notice hereunder shall not constitute or be construed as either: (1) a release, covenant not to sue, or any other limitation whatsoever on the authority of the Division to respond to existing or subsequently identified environmental conditions at or associated with the Henderson Property; or (2) a determination, decision or opinion regarding the suitability of any particular land use for the Henderson Property.

#### **B. COMPLETION OF SUB-AREA CORRECTIVE ACTION**

1. Within ninety (90) days after the Trust concludes that the Trust Work for the Site or Sub-Area has been fully performed and the Corrective Action Standards have been attained, the Trust shall schedule and conduct a pre-determination inspection to be attended by the Trust and the

Division. If, after the pre-determination inspection, and within thirty (30) days of the inspection, the Trust still believes that the Corrective Action(s) has/have been fully performed, that the Corrective Action Standards have been attained and that no further Trust Work is necessary to protect human health and the Environment, the Trust may propose that the Division acknowledge this status in writing. The Trust shall submit such a proposal to the Division in writing, together with a report including data and analysis to support its opinion. In the report, a Certified Environmental Manager ("CEM") and the Trust's authorized representative shall state that the Corrective Action(s) has/have been completed in full satisfaction of the requirements of this Consent Agreement in accordance with certification requirements in Section VII (Service of Notice and Deliverables). The written report shall include as-built drawings signed and stamped by a professional engineer. Upon receipt of such proposal and report, the Division will review the documentation and take appropriate action to confirm that the Trust Work is complete pursuant to Section IX (Deliverables Requiring Division Approval). The Division shall acknowledge this status in writing by providing the Trust with a "No Further Action" letter. A determination of "No Further Action" regarding Corrective Action(s) shall not affect the Trust's remaining obligations under this Consent Agreement.

2. If, after completion of the pre-determination inspection and receipt and review of the written report, the Division determines that the Corrective Action(s) or any portion thereof has/have not been completed in accordance with this Consent Agreement or that the Corrective Action Standards have not been achieved, the Division will notify the Trust in writing of the activities that must be undertaken by the Trust pursuant to this Consent Agreement to complete the Corrective Action(s) and achieve the Corrective Action Standards. The Division will set forth in the notice a schedule for performance of such activities consistent with the Consent

Agreement and the SOW or require the Trust to submit a schedule to the Division for approval pursuant to Section IX (Deliverables Requiring Division Approval). The Trust shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to its right to invoke the dispute resolution procedures set forth in Section XVI (Dispute Resolution).

### **C. COMPLETION OF THE WORK**

1. Within ninety (90) days after the Trust concludes that all elements of the SOW (including O & M and any long-term monitoring) have been fully performed, the Trust shall schedule and conduct a pre-determination inspection to be attended by the Trust and the Division. If, after the pre-determination inspection, the Trust still believes that the Trust Work has been fully performed and that no further Trust Work is necessary to protect human health and the Environment, the Trust may propose that the Division acknowledge this status in writing. The Trust shall submit such a proposal to the Division in writing, together with a report including data and analysis to support its opinion. In the report, a CEM and the Trust authorized representative shall state that the Trust Work has been completed in full satisfaction of the requirements of this Consent Agreement in accordance with certification requirements in Section VII (Service of Notice and Deliverables). Upon receipt of such proposal and report, the Division will review the documentation and take appropriate action to confirm that the Trust Work is complete pursuant to Section IX (Deliverables Requiring Division Approval).

2. If, after review of the written report, the Division determines that any portion of the Trust Work has not been completed in accordance with this Consent Agreement, the Division will notify the Trust in writing of the activities that must be undertaken by the Trust pursuant to this Consent Agreement to complete the Trust Work. The Division will set forth in the notice a

schedule for performance of such activities consistent with the Consent Agreement and the SOW or require the Trust to submit a schedule to the Division for approval pursuant to Section IX (Deliverables Requiring Division Approval). The Trust shall perform all activities described in the notice in accordance with the specifications and schedules established therein, subject to its right to invoke the dispute resolution procedures set forth in Section XVI (Dispute Resolution).

3. If the Division concludes, based on the initial or any subsequent request by the Trust for a determination that the Trust Work has been performed in accordance with this Consent Agreement, the Division will so notify the Trust in writing.

## **VI. PUBLIC PARTICIPATION**

Subject to the provisions of Section XIV (Confidential Business Information), all Deliverables received by the Division may be made available to the public in accordance with applicable law. The Division shall notify the Trust in writing of its determination to provide for, or legal requirement governing, public notice or comment with respect to such document as well as the corresponding adjustment that shall be made to any affected Trust Work or Deliverable submittal or approval schedule. Following any such notice and comment period, the Division may require the Trust to revise the Deliverable and/or perform reasonable additional Trust Work necessary to address appropriately any issue regarding such document identified by the public during such comment period. Public participation activities shall be conducted consistent with requirements of the NCP.

## **VII. SERVICE OF NOTICES AND DELIVERABLES**

1. Whenever under the terms of this Consent Agreement, notice is required to be given or a Deliverable is required to be sent by one Party to another, it shall be directed to the individuals at

the address specified below, unless those individuals or their successors give notice of a change to the other Party in writing.

As to the Division: Shannon Harbour, P.E.  
Special Projects Branch  
Bureau of Corrective Actions  
Nevada Division of Environmental Protection  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701  
[sharbour@ndep.nv.gov](mailto:sharbour@ndep.nv.gov)

With a copy to: Carolyn Tanner  
Senior Deputy Attorney General  
State of Nevada  
Office of the Attorney General  
5420 Kietzke Lane, Suite 202  
Reno, NV 89511  
[ctanner@ag.nv.gov](mailto:ctanner@ag.nv.gov)

As to the Trust: Le Petomane XXVII, Inc., not individually but  
solely in its Representative Capacity as  
Custodial Trust Trustee  
35 E. Wacker Dr., Suite 1550  
Chicago, IL 60601  
[bankruptcytrustee-  
receiver@lepetomaneintrustee.com](mailto:bankruptcytrustee-receiver@lepetomaneintrustee.com)

With a copies to: Tanya C. O'Neill  
Foley & Lardner LLP  
777 E. Wisconsin Avenue  
Milwaukee, WI 53202  
[toneill@foley.com](mailto:toneill@foley.com)

and

Alan DeLorme  
Managing Principal  
ENVIRON Corp.  
6001 Shellmound Street, Suite 700  
Emeryville, CA 94608  
[adelorme@environcorp.com](mailto:adelorme@environcorp.com)

2. All notices and Deliverables shall be considered effective upon receipt when personally served, sent and acknowledged received by electronic mail (e-mail), or three (3) days from the date of mailing by certified U.S. Mail. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Agreement with respect to the Division and the Trust.

3. The Trust shall report any unexpected occurrence at the Site and/or Sub Area(s) that is related to the Trust Work conducted in compliance with this Consent Agreement. Unexpected occurrences include, but are not limited to, prolonged interruptions of remediation, unusual or unanticipated malfunctions, upsets, interruptions, delays, slowdowns, accelerations, and other discoveries that are not subject to other reporting requirements in this Consent Agreement.

4. Upon the occurrence of any event that the Trust is required to report pursuant to Paragraph 3 above, the Trust shall, within two (2) business days of discovering such event, orally notify the Division's Project Coordinator, or in his or her absence, by calling the Division's Emergency Reporting Line at (888) 331-6337. In no case will this Paragraph relieve the Trust from complying with State reporting requirements contained in NAC § 445A.347 (such section titled "Notice Required") when any such reportable event occurs.

5. Within twenty (20) days of the discovery of such an event for which Paragraph 3 above requires reporting, the Trust shall furnish to the Division a written report setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within thirty (30) days after completion of the measures taken in response to such an event, the Trust shall submit a report setting forth all actions taken in response thereto.

6. The Trust shall submit to the Division an original and at least two (2) copies of all Deliverables required by the SOW or any other data or approved plans to the Division in



accordance with the schedules set forth in such plans or the SOW pursuant to the terms and conditions of this Consent Agreement. All Deliverables concerning the activities performed pursuant to the terms and conditions of this Consent Agreement may be delivered to either Party via electronic mail and an original shall be delivered by overnight parcel delivery service to the address provided in Paragraph 1 of this Section. Additional hard copies and/or electronic copies of Deliverables shall be provided as specified in NDEP guidance letter dated October 5, 2010 *RE: NDEP Personnel Changes, Requirements for submittal of Deliverables to NDEP, Distribution of Deliverables to other Companies*, attached hereto as Exhibit C, or the most current version of NDEP guidance on submittal of Deliverables.

7. All Deliverables shall be signed and certified by a responsible Trust officer, and shall be in the following form:

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of the Trust. Based on my own involvement and/or my inquiry of the person or persons who manage the system(s) or those directly responsible for gathering the information or prepared the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_  
Date: \_\_\_\_\_

8. In addition, all Deliverables and other documents submitted by the Trust to the Division that are required under Nevada Law to be prepared or submitted by a CEM shall be signed and certified by the CEM responsible for the project. These Deliverables shall include the Jurat required by NAC 459.97285 and shall be in the following form:

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_  
Date: \_\_\_\_\_  
EM Certificate Number: \_\_\_\_\_  
EM Expiration Date: \_\_\_\_\_

### VIII. PROJECT COORDINATORS

1. The Division and the Trust each shall designate a Project Coordinator and shall notify each other in writing of the Project Coordinator selected. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Agreement and for designating a person to act in his/her absence. The Division Project Coordinator will be the Division's designated representative for the Henderson Property. To the maximum extent practicable, all communications between the Trust and the Division, and all Deliverables, documents, reports, approvals, and other correspondence concerning the activities performed pursuant to this Consent Agreement, shall be in writing and shall be directed to the appropriate Project Coordinator.
2. The Parties shall provide at least seven (7) days written notice prior to changing Project Coordinators.
3. The absence of the Division Project Coordinator from the Henderson Property shall not be cause for the stoppage of Trust Work.

## **IX. DELIVERABLES REQUIRING DIVISION APPROVAL**

1. After review of any Deliverable, which is required to be submitted for approval pursuant to this Consent Agreement, the Division shall: (1) approve, in whole or in part the Deliverable; (2) approve the Deliverable upon specified conditions; (3) modify the Deliverable to cure deficiencies and approve the Deliverable as so modified; (4) disapprove, in whole or in part, the Deliverable, directing that the Trust modify the Deliverable; or (5) any combination of the above.

The Division will provide a written statement of reasons for any approval with conditions, approval with modifications, or disapproval. Notwithstanding any other provision of this Consent Agreement and with respect solely to the first submission to the Division by the Trust of a particular Deliverable, if the Division either approves the Deliverable upon conditions or modifies the Deliverable to cure deficiencies and approves the Deliverable as so modified, then the Trust shall be deemed to have submitted such Deliverable timely and adequately.

2. In the event of approval, approval upon conditions, or modification and approval by the Division pursuant to the preceding paragraph, the Trust shall proceed to take any action required by the Deliverable, as approved or modified and approved by the Division, subject only to its right to invoke the Dispute Resolution procedures set forth in Section XVI (Dispute Resolution) with respect to the modifications or conditions made by the Division.

3. Upon receipt of a notice of disapproval pursuant to paragraph 1 of this Section, the Trust shall:

a. Within thirty (30) days, or such later time as may be specified in such notice, correct the deficiencies in all material respects and resubmit the Deliverable for approval.

b. Notwithstanding the receipt of a notice of disapproval pursuant to paragraph 1 of this Section, the Trust shall proceed, at the written direction of the Division, to take any action required by any non-deficient portion of the Deliverable.

4. In the event that a resubmitted Deliverable, or portion thereof, is disapproved by the Division, the Division may again require the Trust to correct the deficiencies in all material respects, in accordance with the preceding paragraphs. The Division also retains the right to amend or develop the Deliverable. The Trust shall implement any such Deliverable as amended or developed by the Division, subject only to its right to invoke the procedures set forth in Section XVI (Dispute Resolution).

5. If upon resubmission, a Deliverable is disapproved or modified and approved by the Division due to a material defect, the Trust shall be deemed to have failed to submit such Deliverable timely and adequately unless the Trust invokes the dispute resolution procedures set forth in Section XVI (Dispute Resolution) and the Division's disapproval or modification is overturned pursuant to that Section. The provisions of Section XVI (Dispute Resolution) shall govern the implementation of the required work during dispute resolution.

6. All Deliverables or portions thereof and other items required to be submitted to the Division under this Consent Agreement shall, upon approval or modification and approval by the Division, be deemed incorporated into, and enforceable under, this Consent Agreement as specified in Section XXVII (Incorporation and Enforceability of Referenced Material). In the event that the Division approves or modifies and approves a portion of a Deliverable required to be submitted to the Division under this Consent Agreement, the approved or modified and approved portion shall be enforceable under this Consent Agreement as specified in Section XXVII (Incorporation and Enforceability of Referenced Materials). Oral advice, suggestions, or

comments given by Division representatives will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding.

**X. DIVISION APPROVAL OF CONTRACTORS AND CONSULTANTS**

1. All Trust Work performed pursuant to the Consent Agreement shall be under the direction and supervision of a professional engineer, hydrologist, geologist or environmental scientist with expertise in the investigation and remediation of Environmental Contaminants who shall either be or work under the responsible control of a CEM under Nevada law. Each of the Trust's Contractors shall have the technical expertise sufficient to adequately perform all aspects of the Trust Work for which it is responsible. The Trust shall notify the Division's Project Coordinator, as defined in Section VIII (Project Coordinators), in writing of the names, titles and qualifications of the engineer, hydrologist, geologist or environmental scientist and of any Contractors and their personnel proposed to be used in carrying out the terms of this Consent Agreement.

2. The qualifications of Key Project Personnel, including the principal project manager and, if different, any CEM undertaking the Trust Work for the Trust shall be subject to the Division's review and approval, for verification that such persons meet minimum technical background and experience requirements. The Division reserves the right to disapprove the Trust's Key Project Personnel for good cause shown at any time during the effective period of this Consent Agreement. If the Division disapproves any Key Project Personnel proposed by the Trust to perform work pursuant to this Consent Agreement, then the Trust shall, within thirty (30) days after receipt from the Division of written notice of such disapproval, notify the Division in writing of the name, title and qualifications of any replacement. The Division's disapproval

under this Section shall be subject to review in accordance with Section XVI (Dispute Resolution) of this Consent Agreement.

3. During the Effective Period of this Consent Agreement, the Trust shall notify the Division in writing of any changes or additions in the Key Project Personnel used to carry out the work required by the Consent Agreement, providing their names, titles and qualifications. The Division shall have the same right to approve changes and additions to such persons as it has hereunder regarding the initial notification.

## **XI. QUALITY ASSURANCE**

1. The Trust shall follow EPA and Division guidance for sampling and analysis. Work plans shall contain quality assurance/quality control (QA/QC) and chain of custody procedures for all sampling, monitoring, and analytical activities. Any deviations from the QA/QC and chain of custody procedures in approved work plans must be approved by the Division; must be documented, including reasons for the deviations; and must be reported in the applicable Deliverable.

2. The name(s), addresses, and telephone numbers of the analytical laboratories the Trust proposes to use must be submitted to the Division for review and approval prior to Trust Work being performed.

3. The Trust shall use best efforts to ensure that high quality data is obtained by their Contractor or contract laboratories. The Trust shall require that laboratories used by the Trust for analysis perform such analysis according to the latest approved edition of EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846) or other methods deemed satisfactory by the Division. The Trust shall submit any deviations from the protocols proposed in any work plan to the Division for its approval thirty (30) days prior to the commencement of

analyses, except in extraordinary circumstances. The Division may reject any data that does not meet the requirements of the approved work plan or EPA analytical methods and may require re-sampling and additional analysis.

4. The Trust shall ensure that laboratories it or its Contractor(s) use for analyses participate in a QA/QC program equivalent to that required by EPA under the Contract Laboratory Program, unless another program is deemed acceptable to the Division. As part of such a program, and upon request by the Division, such laboratories shall perform analyses of samples provided by the Division to demonstrate laboratory performance and the quality of analytical data. If the audit reveals deficiencies in a laboratory's performance or QA/QC, re-sampling and additional analysis may be required by the Division.

## **XII. SAMPLING AND DATA AVAILABILITY**

1. All final results of sampling, tests, modeling and other data (but not including raw data that has not been subject to QA/QC procedures) generated by the Trust, or on the Trust's behalf, pursuant to this Consent Agreement shall be submitted to the Division in any progress report or Deliverable required by this Consent Agreement. The Trust shall make all raw data available to the Division for review on request, and shall submit such data to the Division on written request. The Division will provide to the Trust any validated data that is generated by the Division unless it is exempt from disclosure by any federal or state law or regulation.

2. The Trust shall notify the Division in writing at least five (5) working days prior to conducting sampling described in any work plan required by this Consent Agreement. If the Trust believes it must commence emergency field activities without delay, the Trust may seek emergency telephone authorization from the Division Project Coordinator or, if the Division Project Coordinator is unavailable, his/her Bureau Chief, the Administrator, or the Deputy

Administrator, to commence such activities immediately. At the Division's oral or written request, the Trust shall provide or allow the Division or its authorized representative to take split or duplicate samples of all samples collected by or on behalf of the Trust pursuant to this Consent Agreement.

### **XIII. SITE ACCESS**

1. At all reasonable times, upon reasonable notice and in conformance with any health and safety requirements at the Henderson Property, the Division, its Contractors, employees, and/or any duly designated Division representatives carrying out the authority of the Division shall have the authority to enter and freely move about all property at the Henderson Property where Trust Work, if any, is being performed pursuant to this Consent Agreement for the purposes of, inter alia: (1) discussing the Trust Work being performed under this Consent Agreement with relevant Trust or Contractor personnel; (2) inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Henderson Property or the Trust and their Contractors pursuant to this Consent Agreement; (3) reviewing the progress of the Trust in carrying out the terms of this Consent Agreement; (4) conducting such tests, sampling, or monitoring as the Division or its authorized representatives deem necessary; (5) with the written consent of the Trust, which shall not be unreasonably withheld, using a camera, sound recording device or other documentary type equipment; (6) verifying the reports and data submitted to the Division by the Trust; and (7) inspecting and copying all nonprivileged records, files, photographs, documents, sampling and monitoring data, and other writings or materials related to Trust Work undertaken in carrying out the requirements of this Consent Agreement. Nothing herein shall be interpreted as limiting, waiving or otherwise affecting (1) the Division's right of entry or inspection under State or federal laws; (2) any attorney-client, work-product or other



privilege with respect to any matter affecting the Trust; or (3) the Trust's right to seek confidential treatment of any matter pursuant to applicable law.

2. To the extent that the Henderson Property or any other property to which access is required for the performance of Trust Work required under this Consent Agreement is owned or controlled by persons or entities other than the Trust, the Trust shall use best efforts to obtain access to such property for the Trust, as well as for the Division and its authorized representatives, within thirty (30) working days after the date that the need for access becomes known to the Trust. For purposes of this paragraph, "best efforts" shall include, at a minimum, a certified letter from the Trust to the present owners, lessees and/or operators of such property requesting access agreements to permit the Trust and the Division, including its authorized representatives, to access such property, and the payment of reasonable compensation in consideration of granting access, such reasonable compensation to be approved by the Division. Any such access agreement shall be incorporated by reference into this Consent Agreement upon execution. The Trust shall provide to the Division's Project Coordinator a copy of each such access agreement. In the event that any necessary agreement for access is not obtained within thirty (30) days following approval of any work plan for which access is required, or following the date that the need for access became known to the Trust, the Trust shall notify the Division thereafter regarding both the efforts undertaken to obtain access and its failure to obtain such access agreement. The Division shall cooperate with the Trust in obtaining access to the extent allowable by state law or Division regulations. In the event that the Division obtains access, the Trust shall undertake Division approved work on such property.

#### **XIV. CONFIDENTIAL BUSINESS INFORMATION**

1. All information required by this Consent Agreement will be deemed public information upon submittal to the Division unless the Trust requests in writing at the time of submittal that specific information be treated as confidential business information in accordance with NRS § 459.555 or NRS § 445A.665, and the Division grants the request. Pending such determination and any appeals thereof, the Division shall treat such information as confidential. Any assertion of confidentiality shall be adequately substantiated in writing by the Trust when the request is made.

2. The Trust agrees not to assert any confidentiality claims with respect to any data related to Henderson Property conditions, sampling, or monitoring except in those instances where a Trust official certifies in writing at the time such data is submitted to the Division that specific data related to Henderson Property conditions is entitled to protection as a "trade secret" pursuant to the standards set forth in NRS § 459.3822 (4) (a) - (d). The Division shall treat such data as confidential if the Trust has established to the satisfaction of the Division at the time of the certification submittal that the data is entitled to protection as a "trade secret" and pending such determination and any timely appeals thereof.

3. If, at any time, any Confidential Business Information or Trade Secret obtained or utilized pursuant to this Consent Agreement are subpoenaed by any Court, administrative or legislative body, or is requested by any other person or entity purporting to have authority to require the production of such Confidential Business Information or Trade Secret (including requests for production under NRS Chapter 239, or other freedom of information, open records, public records and similar statutes) from the Division, the Division unless prohibited by law or regulation, shall provide prompt written notice thereof to the Trust. The Division shall not

immediately voluntarily surrender the Confidential Business Information or Trade Secret in a manner that complies with NRS Chapter 239 or other applicable statutes, so that the Trust may seek a protective order or other appropriate remedy. After receipt of the notice specified under this paragraph, the Trust shall have the sole responsibility for obtaining any order it believes appropriate. If, absent the entry of such a protective order or other remedy, the Division is, in the opinion of its counsel, required to disclose the Confidential Business Information or Trade Secret, then the Division may disclose that portion of the Confidential Business Information or Trade Secret that the Division is required to disclose.

#### **XV. RECORD PRESERVATION**

1. The Trust shall retain, during the Effective Period of this Consent Agreement and to the extent sufficient funds remain in the Nevada Environmental Cost Account, for a minimum of ten (10) years following termination of this Consent Agreement, all data, records, documents, and Deliverables (but excluding drafts, duplicates and privileged materials) which it now has in its possession or control or which come into its possession or control, which relate in any way to this Consent Agreement and to the management and/or disposal of Environmental Contaminants at the Henderson Property as they relate to this Consent Agreement. Information within the possession or control of the Trust shall include all data, documents and records in the possession of its divisions, officers, directors, employees, agents, successors and assigns. After the expiration of such ten-year period, or earlier if the funds remaining in the Nevada Trust Environmental Cost Account are insufficient, the Trust shall notify the Division, or its successor, at least ninety (90) days prior to the scheduled destruction of such data, records, documents or Deliverables and shall provide the Division or its successor with the opportunity to take

possession of such materials. Such written notification shall reference the Effective Date and caption of this Consent Agreement and shall be addressed to:

Nevada Division of Environmental Protection  
Attn: Chief, Bureau of Corrective Actions  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701

2. The Trust further agrees that it shall enter into an agreement with all Contractors performing the Trust Work, which requires such Contractor to provide the Trust with a copy of all Deliverables prepared or produced pursuant to this Consent Agreement.
3. All documents and data required to be maintained by paragraph 1, other than those documents required for the operations of the Trust, shall be stored by the Trust in a centralized location in the State of Nevada and the Trust shall provide access to such non-privileged documents and data to the Division and its authorized representatives.

#### **XVI. DISPUTE RESOLUTION**

1. The Parties shall use their best efforts informally and in good faith to resolve all disputes or differences of opinion. The Parties agree that the procedures contained in this Section are the sole and exclusive procedures for resolving disputes arising under this Consent Agreement. If the Trust fails to follow any of the requirements contained in this Section, then it shall have waived its right to further consideration of the disputed issue.
2. If the Trust disagrees, in whole or in part, with any written determination by the Division pursuant to this Consent Agreement, the Trust's Project Coordinator, as defined in Section VIII (Project Coordinators), shall notify the Division Project Coordinator in writing and by certified mail of the dispute ("Notice of Dispute").
3. Any Notice of Dispute provided by the Trust pursuant to the Dispute Resolution provisions of this Consent Agreement shall in the first instance be the subject of informal

negotiations between the Parties. The period for informal negotiations shall not exceed thirty (30) days following the date of service of the Notice of Dispute, unless such period is extended by written agreement of the Parties. The dispute shall be considered to have arisen when the Division receives the written Notice of Dispute via certified mail. The Bureau Chief of Corrective Actions, or his delegate, shall provide a written decision of the dispute within forty-five (45) days of the date the dispute arises.

4. In the event that the Parties cannot resolve a dispute by informal negotiations under the preceding paragraph, then the position advanced by the Division shall be considered binding unless, within thirty (30) days after the date of the Division's written decision set forth in Paragraph 3 of this Section, the Trust invokes the formal dispute resolution procedures of this Section by serving on the Division Administrator a written Statement of Position which shall set forth the specific points of the dispute, the position the Trust claims should be adopted as consistent with the requirements of this Consent Agreement, the basis for the Trust's position, any factual data, analysis or opinion supporting that position, any supporting documentation relied upon by the Trust, and any matters which it considers necessary for the Administrator's determination. The Statement of Position also may include a request for an opportunity to make an oral presentation of factual data, supporting documentation and expert testimony to the Administrator and to answer questions that the Administrator may pose. It is within the sole discretion of the Administrator to grant or deny a request for an oral presentation.

5. Within thirty (30) days following receipt of a Statement of Position, or by such later date within thirty (30) days after any oral presentation by the Trust as the Administrator may deem appropriate to adequately address such oral presentation, the Administrator shall issue his/her decision, which shall be binding on the Trust and not appealable unless, within twenty (20) days

after receipt of the decision, the Trust exercises its rights as stated in paragraph 6 of this Section. The Administrator's written decision shall include a response to the Trust's arguments and evidence. The written decision of the Administrator shall be incorporated into and become an enforceable element of this Consent Agreement and shall be considered the Division's final decision as provided in paragraph 6 of this Section.

6. As to any final Division decision, the Trust may pursue the dispute before the State Environmental Commission as a "contested case" pursuant to NRS Chapter 233B, NRS §§ 445B.200 – 445B.245, and NAC §§ 445B.875– – 445B.899899, and shall be entitled to both administrative review as provided therein. As to any appeal of the State Environmental Commission's decision, the appellant shall be entitled to petition for judicial review before the United States Bankruptcy Court, for the Southern District of New York, applying Nevada law.

7. The existence of a dispute as defined in this Section and the Administrator's consideration of matters placed into dispute shall not excuse, toll, or suspend any compliance obligation or deadline required of the Trust under this Consent Agreement during the pendency of the dispute resolution process. The Parties do not intend the preceding sentence to require the Trust, during the pendency of any good faith dispute, to take actions that would have the effect of mooting the subject of the dispute.

## **XVII. FORCE MAJEURE**

1. The Trust shall perform the requirements of this Consent Agreement within the time limits prescribed, unless the performance is prevented or delayed by events which constitute a *force majeure*. The Trust shall have the burden of proving such a *force majeure*. A *force majeure*, for purposes of this Consent Agreement, is defined as any event arising from causes not reasonably foreseeable and beyond the reasonable control of the Trust, or of any person or entity

controlled by the Trust, which delays or prevents the timely performance of any obligation under this Consent Agreement despite the Trust's best efforts to fulfill such obligation. A *force majeure* may include: extraordinary weather events, natural disasters, strikes, lockouts, national emergencies, delays in obtaining access to property not owned or controlled by the Trust despite timely best efforts to obtain such access, and delays in obtaining any required approval or permit-from the Division or any other public agency that occur despite the Trust's complete, timely and appropriate submission of all information and documentation required for approval or applications for permits within a timeframe that would allow the work to proceed in a manner contemplated by the schedule of the Consent Agreement. A *force majeure* does not include (i) increased costs of the work to be performed under the Consent Agreement, (ii) financial inability to complete the work or (iii) normal precipitation events.

2. If any event occurs or has occurred that may delay the performance of the Trust's obligations under this Consent Agreement, whether or not caused by a *force majeure* event, the Trust's Project Coordinator or, in his or her absence, a responsible corporate official, shall notify the Division orally by contacting the Division's Project Coordinator or, in his or her absence, by calling the Division's Emergency Reporting Line at (888) 331-6337, within two (2) business days of when the Trust first knew or should have known that the event might cause a delay. If the Trust wishes to claim a *force majeure* event, then within ten (10) days thereafter, the Trust shall provide to the Division a written explanation and description of the obligation(s) delayed or affected by the *force majeure* event; the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the Trust's rationale for attributing such delay to a *force majeure* event; and a statement as

to whether, in the opinion of the Trust, such event may cause or contribute to an imminent and substantial hazard to human health, welfare, or the Environment. The Trust shall include with any notice all available documentation supporting its claim that the delay was attributable to a *force majeure*. Failure to comply with the above requirements shall preclude the Trust from asserting any claim of *force majeure* for that event.

3. The Division shall notify the Trust in writing of its *force majeure* determination within fifteen (15) days after receipt of the notice from the Trust. If the Division determines that the delay has been or will be caused by circumstances constituting a *force majeure* event, the time for performance of the obligations under this Consent Agreement that are affected by the *force majeure* event will be extended by the Division in writing for such time as the Division determines is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation, unless the Trust can demonstrate to the Division's satisfaction that more than one obligation was affected by the *force majeure* event.

4. In the event that the Division and the Trust cannot agree that any delay or failure has been or will be caused by circumstances constituting a *force majeure*, or if there is no agreement on the length of the extension, the dispute shall be resolved in accordance with the dispute resolution provisions set forth in Section XVI (Dispute Resolution) of this Consent Agreement.

#### **XVIII. REIMBURSEMENT OF DIVISION OVERSIGHT COSTS**

1. Following the Effective Date and for the Effective Period of this Consent Agreement, the Trust shall reimburse the Division for costs reasonably incurred for oversight of this Consent Agreement, consistent with the Settlement Agreement and NERT Agreement.



2. The Division shall submit to the Trust invoices for its oversight and expenses on a quarterly basis. Submittals shall be made promptly after the Division's preparation and internal review. Upon request, the Division shall make available to the Trust all relevant documents in support of its invoices for inspection or audit by the Trust.

3. All payments due by the Trust hereunder shall be received by the Division within thirty (30) days of the Trust's receipt of the invoice. The Trust shall remit payment for the full amount due and owing for (a) amounts greater than \$10,000 at <https://epayments.ndep.nv.gov/> in the form of an "electronic transfer of money" per NRS 353.1467 and in accordance with NDEP electronic payment policy, which may be found at <https://epayments.ndep.nv.gov/FAQ.htm> or (b) amounts of \$10,000 or less with an electronic payment as specified above or by check payable to the "State of Nevada Hazardous Waste Fund" that references the name of the Site, the Company name and address, and the billing number identified in the Division invoice and sent to:

Nevada Division of Environmental Protection  
901 South Stewart Street, Suite 4001  
Carson City, Nevada 89701  
Attn: Chief, Bureau of Corrective Actions

4. The Trust may contest payment of any Oversight Costs under this Section if it determines that the Division has made an accounting error or if it alleges that a cost item that is included represents costs that are unreasonable or inconsistent with the Trust Work. Such objection shall be made in writing within thirty (30) days of receipt of the invoice and must be sent to the Division pursuant to Section VII (Service of Notices and Deliverables). Any such objection shall specifically identify the contested oversight costs and the basis for objection. In the event of an objection, the Trust shall within thirty (30) days pay all uncontested oversight costs to the State in the manner described in Paragraph 3 and the Trust shall initiate the dispute resolution

procedures in Section XVI (“Dispute Resolution”). If the Division prevails in the dispute, within fifteen (15) days of the resolution of the dispute, the Trust shall pay the sums due to the Division in the manner described in Paragraph 3. If the Trust prevails concerning any aspect of the contested costs, the Trust shall pay that portion of the costs for which they did not prevail to the Division. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVI (“Dispute Resolution”) shall be the exclusive mechanisms for resolving disputes regarding the Trust’s obligation to reimburse the Division for its oversight costs.

### **XIX. RESERVATION OF RIGHTS**

1. The Division reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to the Trust's failure to comply with any of the requirements of this Consent Agreement or of any requirement of federal or state laws, regulations, or permit conditions. Except as provided in Section XXI (Other Claims; Covenant Not to Sue), this Consent Agreement shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which the Division has under any applicable Environmental Law or common law authority of the State. This Consent Agreement in no way relieves the Trust of its responsibility to comply with any federal, state or local law or regulation.
2. The Division reserves the right to disapprove Trust Work performed by the Trust pursuant to this Consent Agreement subject to Dispute Resolution under Section XVI.
3. The Division reserves any and all legal rights and equitable remedies available to enforce (1) the provisions of this Consent Agreement, or (2) any applicable provision of State or federal Law.

4. If the Division determines that activities in compliance or noncompliance with this Consent Agreement have caused a Release of an Environmental Contaminant that may present an imminent and substantial hazard to human health, welfare, and/or the Environment, the Division may order the Trust to stop further implementation of this Consent Agreement for such period of time as the Division determines may be needed to abate any such Release and/or to undertake any action which the Division determines is necessary to abate such Release.

5. This Consent Agreement is neither a permit nor a modification of a permit. The Parties acknowledge and agree that the Division's approval of any work plan hereunder does not constitute a warranty or representation that the work plan will achieve the required or appropriate investigatory or performance standards.

6. Notwithstanding any other provision of this Consent Agreement and except as provided in Section XVI (Dispute Resolution), no action or decision by the Division pursuant to this Consent Agreement including, without limitation, decisions by the Administrator, shall constitute final agency action giving rise to any right of judicial review prior to the Division's initiation of a judicial action to enforce this Consent Agreement, including an action to compel the Trust's compliance with the terms and conditions of this Consent Agreement.

7. The Trust reserves all rights, claims and/or defenses it may have in any action brought or taken by the Division, the EPA or any third party pursuant to applicable law, with respect to the specific claims that can be asserted at the Henderson Property, including any rights, claims and/or defenses as set forth in the Settlement Agreement or the NERT Agreement.

8. In any subsequent administrative or judicial proceeding initiated by the State for injunctive or other appropriate relief relating to the Henderson Property, the Trust shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, claim-

splitting, or other defenses based upon any contention that the claims raised by the State of Nevada in the subsequent proceeding were or should have been raised in this Consent Agreement.

9. This Consent Agreement shall be construed according to the laws of the State of Nevada. Except as set forth in Section XVI (Dispute Resolution), Paragraph 6, the Parties consent to the exclusive jurisdiction of the United States Bankruptcy Court, for the Southern District of New York.

10. Nothing in this Consent Agreement shall be construed as an admission of liability by the Trust.

#### **XX. COOPERATION IN REVIEW**

With respect to any action by the Trust or the Division contemplated by this Consent Agreement including without limitation the provisions of Section IV (Work to be Performed), for which a time period is not specified herein or in any relevant work plan, the Trust and the Division agree to perform such actions within a reasonable time under the circumstances, so as not to prejudice the other Party.

#### **XXI. OTHER CLAIMS; COVENANT NOT TO SUE**

1. Nothing in this Consent Agreement shall constitute or be construed as a release from, or covenant not to sue with respect to, any claim, cause of action, demand or defense in law or equity, against any person, firm, partnership, or corporation for, or in respect of, any liability it may have arising out of or relating in any way, to the generation, storage, treatment, handling, management, transportation, Release, threatened Release, or disposal of any Environmental Contaminant at or otherwise associated with the Henderson Property.

2. Notwithstanding any provision of the Consent Agreement to the contrary, the Division

covenants not to sue the Trust for oversight costs incurred by the Division under this Consent Agreement in excess of the amounts specified in Section XVIII (Reimbursement of Division Oversight Costs).

## **XXII. OTHER APPLICABLE LAWS**

All actions required to be taken pursuant to this Consent Agreement shall be undertaken in accordance with the requirements of all applicable local, State, and federal laws and regulations, and consistent with the NCP. The Trust shall obtain or cause its representative(s) to obtain all permits and approvals necessary under such laws and regulations.

## **XXIII. COMPUTATION OF TIME**

For purposes of computing due dates set forth in this Consent Agreement, the Effective Date, or the day of the act, event, or default from which the designated period of time begins to run, shall be designated and counted as day zero (0). Calendar days shall be utilized in computing due dates. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or legal State or federal holiday, in which event the period runs until the end of the next day which is not one of the aforementioned days.

## **XXIV. GOVERNING LAW**

The provisions and interpretation of this Consent Agreement shall be governed by the law of the State of Nevada.

## **XXV. MODIFICATION**

1. This Consent Agreement may be modified or amended only upon the mutual agreement of the Trust and the Division. Any agreed upon amendment or modification shall be in writing, shall be signed by both Parties, shall have as its effective date the date on which it is signed by the Division, and shall, upon execution, be incorporated into and made enforceable under this

Consent Agreement as provided in Section XXVII (Incorporation and Enforceability of Referenced Materials).

2. Any requests for a compliance date modification or revision of an approved work plan requirement or an approved schedule must be made in writing. Such requests must be timely and provide justification for any proposed compliance date modification, work plan revision, or schedule revision. The Division has no obligation to approve such requests, but if it does so, such approval must be in writing. Any approved compliance date, work plan, or schedule modification shall be incorporated by reference into and made enforceable under this Consent Agreement as provided in Section XXVII (Incorporation and Enforceability of Referenced Materials).

3. No informal advice, guidance, suggestions, or comments by the Division regarding any matter associated with this Consent Agreement shall be construed as relieving the Trust of its obligation to obtain written approval regarding any Deliverable, if and when required by this Consent Agreement; provided, however, that the Division shall consider the good faith reliance by the Trust on such advice in the exercise of its prosecutorial discretion hereunder.

#### **XXVI. SEVERABILITY**

If any provision or authority of this Consent Agreement or the application of this Consent Agreement to either Party or any circumstances is held by any judicial or administrative authority to be invalid, and such holding does not result in a material change in the rights or obligations of the Parties, the application of such provisions to other circumstances and the remainder of the Consent Agreement shall remain in force and shall not be affected thereby.

#### **XXVII. INCORPORATION AND ENFORCEABILITY OF REFERENCED MATERIALS**

The following attachments are incorporated into, and made fully enforceable under this

Consent Agreement as if fully set forth herein: Exhibit A (The Action Memorandum: Removal and Long-Term Actions, Nevada Environmental Response Trust Site, Clark County, Nevada, dated July 21, 2011), Exhibit B (Nevada Environmental Response Trust Site Interim Consent Agreement Scope of Work), and Exhibit C (NDEP guidance letter dated October 5, 2010 RE: NDEP Personnel Changes, Requirements for submittal of Deliverables to NDEP, Distribution of Deliverables to other Companies). Any and all Consent Agreement amendment(s) or modification(s), work plan(s) (including each schedule contained therein and attachments thereto), schedules, and Deliverable(s) required hereunder shall, upon execution or Division approval as submitted or modified, be deemed incorporated into and made fully enforceable under this Consent Agreement as if fully set forth herein.

#### **XXVIII. TERMINATION**

After completion of the Trust Work required hereunder, the Trust shall submit to the Division a Statement of Completion, which certifies that the Trust has fulfilled all obligations under this Consent Agreement, including the performance of any additional Trust Work and the payment of any costs to the Division. Within a reasonable time after receipt of the Statement of Completion, the Division shall issue a written notice to the Trust that all obligations under this Consent Agreement have been fulfilled. If the Division determines that all obligations have not been fulfilled, such notice shall specify the obligations the Division believes must be fulfilled in order to satisfy this Consent Agreement. Except for the obligations in Section XIV (Confidential Business Information) and Section XV (Record Preservation) of this Consent Agreement, any and all obligations of the Trust created by the terms of this Consent Agreement shall be deemed satisfied and shall terminate upon issuance by the Division of written notice that the Trust has fulfilled all obligations under this Consent Agreement.

**XXIX. CONSISTENCY OF AGREEMENTS AND CONSTRUCTION**

To the extent reasonably possible, the provisions of this Consent Agreement shall be interpreted in a manner consistent with the Settlement Agreement and the NERT Agreement. Where the provisions of this Consent Agreement are irreconcilable with the provisions of the Settlement Agreement or the NERT Agreement, the provisions of the Settlement Agreement shall prevail, with the exception of matters covered by the following sections of the NERT Agreement: Section 1.1.34, Section 2.5.1, Sections 3.2.1 through 3.2.4 and Article IV in its entirety, in which case the NERT Agreement will be deemed controlling.

**XXX. MERGER**

This Consent Agreement represents a final and complete agreement between the Division and the Trust, provided however, that nothing in this Consent Agreement supersedes, terminates, modifies, diminishes or otherwise affects the Settlement Agreement and NERT Agreement with respect to the Site. This final Consent Agreement is the result of extensive negotiations between the Parties over each provision contained herein. Each provision shall therefore be construed to have been mutually drafted and neither Party shall be deemed to have solely drafted this entire

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Consent Agreement or any single provision herein.

IN WITNESS WHEREOF, the Division and the Trust execute this Consent Agreement by their duly authorized representatives.

THE STATE OF NEVADA  
DIVISION OF ENVIRONMENTAL  
PROTECTION

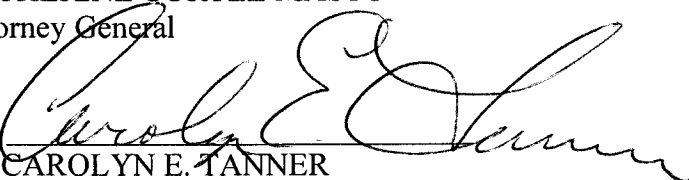
By:   
COLLEEN CRIPPS, PhD.  
Administrator

NEVADA ENVIRONMENTAL RESPONSE  
TRUST by Le Petomane XXVII, INC., not  
individually but solely in its representative  
capacity as Trustee

By: \_\_\_\_\_  
Jay A. Steinberg, not individually but  
solely in his representative capacity as  
President of the Nevada Environmental  
Response Trust Trustee

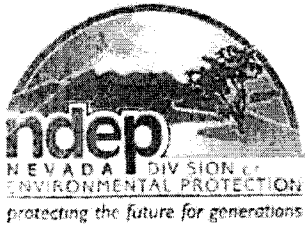
Approved as to form and content:

CATHERINE CORTEZ MASTO  
Attorney General

By:   
CAROLYN E. TANNER  
Senior Deputy Attorney General

**EXHIBIT A**

**EXHIBIT A**



STATE OF NEVADA  
Department of Conservation & Natural Resources  
DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandaval, Governor  
Lea M. Drozdoff, P.E., Director  
Colleen Cripps, Ph.D., Administrator

## MEMORANDUM

DATE: July 21, 2011

SUBJECT: **Action Memorandum: Removal Actions, Nevada Environmental Response Trust Site, Clark County, Nevada (NDEP No.: H-000539)**

FROM: Shannon Harbour, Staff Engineer III, Special Projects Branch, BCA, NDEP

TO: Jim Najima, Bureau Chief, BCA, NDEP

THROUGH: William Knight, Supervisor, Special Projects Branch, BCA, NDEP

### I. PURPOSE

The purpose of this memorandum is to document approval of the following removal actions described herein for the Nevada Environmental Response Trust (NERT) site, located outside of the City of Henderson, Clark County, Nevada, as defined in the NERT Settlement Agreement ("Henderson Property"):

1. The groundwater extraction and treatment system for the treatment of chromium and perchlorate and
2. Excavation of soil impacted with perchlorate dioxins/furans, hexachlorobenzene, pesticides, metals, and/or other contaminants.

### II. SITE CONDITIONS

**History of Facility Production.** The Henderson Property comprises approximately 452 acres located within the Black Mountain Industrial (BMI) complex in unincorporated Clark County and is surrounded by the city of Henderson, Nevada. The BMI complex was first developed by the U.S. government in 1942 as a magnesium plant for World War II operations. After the war, the portion of the BMI complex that now comprises the Henderson Property was leased to Western Electrochemical Company (WECCO). Pursuant to a contract with the U.S. Navy, WECCO constructed a facility in the early 1950's and the facility produced manganese dioxide, sodium chlorate, sodium perchlorate, and other perchlorates, in addition to ammonium perchlorate for the Navy for two decades.

WECCO merged with American Potash and Chemical Company (AP&CC) in 1956. In 1967, AP&CC merged with Kerr-McGee Corporation and began producing boron chemicals in early 1976 as well as continuing to produce ammonium perchlorate. Kerr-McGee Corporation operated onsite under the subsidiary and related entities.



Kerr-McGee Chemical Corporation, and Kerr-McGee Chemical, LLC (collectively, KMCC). The production processes utilized by KMCC included elemental boron, boron trichloride, and boron tribromide. The production of boron tribromide was discontinued in 1994 and the production of sodium chlorate and ammonium perchlorate was discontinued in 1997 and 1998, respectively. KMCC reclaimed perchlorate at the site until 2002 using on-site equipment. In 2004, Kerr-McGee Corporation spun off its chemical business into an entity named Tronox LLC (Tronox). Tronox continued to produce electrolytic manganese dioxide, elemental boron, boron trichloride, and boron fibers.

**History of Environmental Response.** During the 1970s, the U.S. Environmental Protection Agency (USEPA), the State of Nevada, and Clark County investigated potential environmental impacts from atmospheric emissions, groundwater and surface water discharges, and soil discharges from the various BMI companies. From 1971 to 1976, lined surface impoundments were constructed to recycle and evaporate industrial wastewater generated from the KMCC manufacturing processes. Zero discharge status was achieved for industrial wastewater in 1976. In 1980 USEPA issued a Clean Water Act Section 308 letter requesting information from the BMI companies regarding manufacturing and waste management practices. Commencing in 1981, KMCC began investigating potential source areas and extent of chromium contamination in the shallow water bearing zone. In 1987, the chromium groundwater treatment system commenced operation. KMCC completed a Phase I site Assessment in 1993, which was submitted to the NDEP. In 1994, NDEP issued a Letter of Understanding (LOU) to KMCC, which identified 69 areas that required some specified level of environmental investigation (Appendix B, Figures 16 and 17). A Phase II Site Assessment was completed in 1996 in accordance with a NDEP-approved Phase II Work Plan.

Based on sampling conducted by the Southern Nevada Water Authority and others in the Lower Colorado River system, the occurrence of perchlorate in the Lower Colorado River Basin system was determined to have originated in the Las Vegas Wash, and KMCC and former PEPCON facilities were suspected as the sources. NDEP and the Nevada Attorney General's Office responded by requiring soil and groundwater investigation for perchlorate commencing in 1999 with the signing of the July 26, 1999 Consent Agreement between KMCC and NDEP. Perchlorate loadings of up to 1,000 pounds per day were shown to be entering the Colorado River system during this time. In 1998, KMCC installed an on-site well field and constructed an 11-acre groundwater impoundment, GW-11. In 1999, KMCC began collecting groundwater from a seep discovered near the Las Vegas Wash, in which perchlorate had been detected. Additionally that year, KMCC constructed a temporary ion exchange system adjacent to the seep area for the treatment of the perchlorate-impacted groundwater. In 2001, KMCC constructed a subsurface slurry wall on-site for additional containment and enhanced capture of the on-site perchlorate plume and two off-site well fields were installed: Athens Road Well Field and Seep Well Field. After a failed remediation effort using ionic separation perchlorate destruction module, KMCC expanded the temporary once-through ion exchange system in 2002. By the end of 2004, KMCC had constructed a fluidized

bed reactor (FBR) system for biological destruction of perchlorate and had completed transitioning from the temporary ion exchange system to the new FBR system. In 2006, Tronox expanded the FBR system by adding an additional reactor to manage the decommissioning of Pond AP-5. This expansion allowed for an increase in the treatment capacity of the treatment system. The hydraulic loading was held constant at 1,000 gallons per minute causing the retention time in each bioreactor to increase, thus allowing for the treatment of higher mass loading. The mass loading prior to the additional bioreactor was approximately 22,400 pounds per month and after the additional bioreactor became operational, the mass loading could be increased to 48,000 pounds per month.

In 2006, Tronox conducted a focused Phase A soil characterization effort consisting of 27 borings in select potential source areas throughout the site. In 2009, Tronox conducted a large soil, groundwater, and soil gas sampling effort in order to characterize potential source areas consisting of over 150 sampling locations as part of a NDEP-approved Phase B Sampling and Analysis Plan. In 2010, Tronox reported the resulting data to the NDEP and this data combined with previous investigation data indicated wide-spread and varied soil contamination throughout the site. Contaminants identified include those listed in paragraph A.4. In response to the analytical results and Tronox's protracted schedule, NDEP issued a Finding of Alleged Violations and Order to Tronox on December 14, 2009 requiring source control by December 31, 2010. Tronox began excavation of contaminated soils at the site in August 2010 in accordance with four NDEP-approved Excavation Plans for Remediation Zones B through E (2010B – 2010H, NGEM).

Tronox filed for Chapter 11 bankruptcy in the Southern District of New York in January, 2009. Reorganized Tronox emerged from bankruptcy on February 14, 2011 with their environmental liabilities discharged. Through the bankruptcy, the Nevada Environmental Response Trust (NERT) was established to address these legacy environmental liabilities at the BMI Tronox facility. At the same time, the NERT assumed ownership of the site. Reorganized Tronox leased back the operations portion of the site and continues to operate the production processes for manganese dioxide, elemental boron, boron trichloride, and boron fibers. As of February 14, 2011, the NERT has assumed management of operations of the FBR system as well as assuming all soil excavation activities related to the legacy liabilities. The NERT is continuing the overall site remedial process under NDEP oversight and has scheduled a focused feasibility study (FFS) to address groundwater remediation.

#### **A. Site Description**

##### **1. Removal site evaluation**

Please see Appendix C for a table listing the 69 LOU Potential Source Areas identified by NDEP. NDEP identified an additional area during the Phase B Sampling and Analysis Plan planning in 2008. These potential source areas were investigated to characterize any soil and/or groundwater impacts.

Historic investigations focused on hexavalent chromium and perchlorate in groundwater.

The historic investigations prompted the removal action of construction of a groundwater treatment system for the removal of hexavalent chromium with following investigations prompting the construction of an additional groundwater treatment system (FBR system) for the removal of perchlorate. The Phase B Investigation prompted the excavation of over 500,000 cubic yards of impacted soils and tailings as well as the removal of the on-site Hazardous Waste Landfill.

## **2. Physical location**

The Henderson Property (NDEP #: H-000539) is approximately 452 acres and is located approximately 13 miles southeast of the city of Las Vegas in an unincorporated area of Clark County, Nevada in Township 22 S, Range 62 E, Sections 1, 12, and 13. This site is located within the Black Mountain Industrial (BMI) complex, which is surrounded by the City of Henderson, Nevada. The population of Henderson, NV is approximately 258,000 with the area immediately surrounding the site being industrial and commercial with some nearby residences. The dissolved perchlorate plume originating from the Henderson Property is impacting the Las Vegas Wash, which is located approximately 3.5 miles to the north. The Las Vegas Wash is a tributary to the Lake Mead and the Colorado River system, which affects approximately 15,000,000 end water users in Nevada, Arizona, and California.

## **3. Site characteristics**

A portion of the site continues to be operated by Reorganized Tronox, now as a tenant of the Henderson Property, for the production of elemental boron, boron trichloride, and manganese dioxide. Another smaller portion of the site houses the groundwater treatment system and supporting components and On-site Well Field. Three lined surface impoundments currently exist on-site: GW-11 Pond associated with the groundwater treatment system for the storage of extracted groundwater as needed, WC-East and WC-West Ponds associated with the Tronox production processes. The remainder of the property is predominately unused.

## **4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**

The following contaminants have been observed in soils at concentrations greater than the established applicable or relevant and appropriate requirements (ARARs) and, if left in place and uncontrolled, would exceed  $10^{-4}$  incremental lifetime cancer risk (ILCR) and a hazard index (HI) of 1 (2008A, ENSR):

- Dioxins/Furans
- SVOCs
  - Hexachlorobenzene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Dibenzo(a,h)anthracene
- VOCs
  - Benzene
  - Chloroform
- Pesticides
  - 4,4-DDE
  - 4,4-DDT
  - Aldrin
  - Alpha-BHC
  - Beta-BHC
- PCBs
- Perchlorate
- Asbestos
- Metals
  - Arsenic
  - Chromium
  - Cobalt
  - Lead
  - Magnesium
  - Manganese

The following metals have been observed in soils at concentrations that may pose a leaching concern and potential to affect groundwater at concentrations above acceptable leaching soil screening levels (LSSLs) (2010I, NGEM):

- Antimony
- Arsenic
- Boron
- Cadmium
- Chromium VI
- Copper
- Magnesium
- Manganese
- Nickel
- Uranium
- Zinc

The following contaminants have been observed in groundwater at concentrations above USEPA drinking water Maximum Contaminant Levels (MCLs), BCLs, or Las Vegas Wash Beneficial Use Standards (2010I, NGEM):

- Pesticides
  - Aldrin
  - Alpha-BHC
  - Beta-BHC
  - Gamma-BHC (Lindane)
  - Heptachlor epoxide
  - Toxaphene
- SVOCs
  - 1,4-Dioxane
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - bis(2-Ethylhexyl)Phthalate
  - dibenzo(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
- VOCs
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,2,3-Dichloropropane
  - 1,2,4-Dichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dichloroethane
  - 2,2-Dichloropropane
  - Benzene
  - Bromodichloromethane
  - Bromoform
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroform
  - Dibromochloromethane
  - Hexachlorobutadiene
  - Methylene chloride
  - Tetrachloroethene
  - Trichloroethene
- Perchlorate
- Cyanide
- Metals
  - Arsenic
  - Boron
  - Chromium VI
  - Iron
  - Magnesium
  - Manganese
  - Strontium
  - Uranium
- Ammonia



The following contaminants have been identified as exceeding the upper screening limits for the EPA version of the Johnson and Ettinger Model for indoor air vapor intrusion based on soil gas sampling results (2010I, NGEM):

- Carbon tetrachloride
- Chloroform
- Tetrachloroethene
- Trichloroethene

#### 5. Maps, pictures and other graphic representations

The following Maps and Figures are found in Appendix B of this document.

- B1. "Site Location Map" – Figure 1 from Site Management Plan (2011, ENVIRON)
- B2. "Site Features" – Figure 2 from Site Management Plan (2011, ENVIRON)
- B3. "Tronox Sale Parcels" – Figure 3 from Site Management Plan (2011, ENVIRON) – contains all Assessor Parcel Numbers for the site
- B4. "Tronox Due Diligence Henderson Facility Site Map" – Drawing A-00-1-169 from Single Tenant Industrial Lease between Le Petomane XXVII, Inc. and Tronox LLC (2011, Lease)
- B5. "Remediation Zone A" – Figure 2 from Errata to Revised Human Health Risk Assessment for Remediation Zone A Tronox LLC Henderson, Nevada (2010B, NGEM) – illustrates soil remediation zones
- B6. "Remediation Zone A Soil Sample Locations" – Figure 3 from Errata to Revised Human Health Risk Assessment for Remediation Zone A Tronox LLC Henderson, Nevada (2010, NGEM)
- B7. "RZ-B Excavation Areas and Nature and Extent of Contamination" – Figure 1 from Errata to RZ-B and RZ-D Figures Tronox Facility, Henderson, Nevada (2010, NGEM)
- B8. "Remediation Zone C-West and -South Excavation" – Figure 2a from Revised Excavation Plan for Phase B Soil Remediation of RZ-C Tronox LLC Henderson, Nevada (2010, NGEM)
- B9. "Remediation Zone C-North Excavation" – Figure 2b from Revised Excavation Plan for Phase B Soil Remediation of RZ-C Tronox LLC Henderson, Nevada (2010, NGEM)

- B10. "Remediation Zone C-East Excavation" – Figure 2c from Revised Excavation Plan for Phase B Soil Remediation of RZ-C Tronox LLC Henderson, Nevada (2010, NGEM)
- B11. "RZ-D Excavation Areas and Nature and Extent of Contamination" – Figure 1 from Errata to RZ-B and RZ-D Figures Tronox Facility, Henderson, Nevada (2010, NGEM)
- B12. "RZ-E Excavation Area and Nature and Extent of Contamination" – Figure 1 from Excavation Plan for Phase B Soil Remediation of RZ-E, Addendum to the Removal Action Work Plan Tronox LLC Henderson, Nevada (2010, NGEM)
- B13. "Groundwater Perchlorate Map Shallow Water-Bearing Zone, Second Quarter 2010" – Plate 7 from Annual Remedial Performance Report for Chromium and Perchlorate, July 2009 – June 2010, Tronox LLC, Henderson, Nevada (2010A, NGEM)
- B14. "Groundwater Perchlorate Map, Shallow Water-Bearing Zone, Second Quarter 2002" – Plate 7a from Annual Remedial Performance Report for Chromium and Perchlorate, July 2009 – June 2010, Tronox LLC, Henderson, Nevada (2010A, NGEM)
- B15. "Groundwater Total Chromium Map Shallow Water-Bearing Zone Second Quarter 2010" – Plate 6 from Annual Remedial Performance Report for Chromium and Perchlorate, July 2009 – June 2010, Tronox LLC, Henderson, Nevada (2010A, NGEM)
- B16. "Phase B Area I LOUs" – Figure 3 from Phase B Source Area Investigation Work Plan Area I (Northern LOUs), Tronox LLC Facility, Henderson, Nevada (2008A, ENSR)
- B17. "Phase B Area IV LOUs" – Figure 3 from Phase B Source Area Investigation Work Plan Area IV (Western and Southern LOUs), Tronox LLC Facility, Henderson, Nevada (2008D, ENSR)

## **B. Other Actions to Date**

### **1. Previous actions**

Perchlorate in groundwater: KMCC operated a temporary ion exchange system for the removal of perchlorate from 1999 through 2004. KMCC attempted to operate a full-scale ion separation-perchlorate destruction module system but after several attempts the perchlorate destruction module would not operate as designed and reverted back to the temporary ion exchange system. (2002A, ENSR; 2010D, NGEM)

### **2. Current actions**

Groundwater: Chromium VI in groundwater is treated at the Athens Road and Seep Well Fields with ferric chloride to precipitate chromium out of solution as well as an on-site chromium groundwater treatment system. Perchlorate is removed via biological reduction in fluidized bed reactors from groundwater collected from the On-Site (aka Interceptor), Athens, and Seep Well Fields. (2010A, NGEM)

Soils: Any contaminants that exceeded the established action levels have been scheduled for removal through excavation and disposal off-site (2010C, NGEM). Over 500,000 cubic yards of on-site contaminated soil has been removed based on exceedance of an ARAR or risk-based screening criteria.

### III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

#### A. Threats to Public Health or Welfare

Groundwater: Perchlorate originating from what is now the Henderson Property has been observed in the Lower Colorado River Basin system, which affects the drinking water supply of approximately 15,000,000 people in Nevada, Arizona, and California. To date, USEPA has not promulgated a MCL for perchlorate; however, perchlorate has historically and is currently present in the Las Vegas Wash at concentrations greater than the NDEP provisional action level of 18 µg/L. Historical surface water sampling in the Las Vegas Wash demonstrated that 850 – 1,000 pounds of perchlorate per day were moving through the Las Vegas Wash and into Lake Mead Recreational Area and the rest of the downstream Colorado River system.

Chromium VI originating from what is now the Henderson Property has been detected in groundwater both on-site and off-site at concentrations greater than the MCL for total chromium of 100 µg/L and had the potential to migrate into the Las Vegas Wash and the Lower Colorado River Basin system; thereby, potentially impacting the drinking water supply of approximately 15,000,000 people, recreationalists in the Lake Mead Recreational Area and other downstream uses, such as irrigation, in the Lower Colorado River Basin system in Southern Nevada, Arizona, and Southern California.

Soil: Contaminants in surface and near-surface on-site soils that exceeded their respective BCLs were scheduled for excavation per a NDEP-approved series of Phase B Excavation Plans. These soils had the potential of becoming air-borne dust and impacting nearby workers and residents. Additionally, these soils had the potential to impact site construction and utility workers.

#### B. Threats to the Environment

Groundwater: Historically detected perchlorate groundwater contamination had migrated to the Las Vegas Wash and was impacting the Lower Colorado River Basin system. Additionally historically detected chromium VI groundwater

contamination had the potential to reach the Las Vegas Wash, which would have lead to the contamination of the downstream Colorado River system.

#### IV. ENDANGERMENT DETERMINATION

**Actual or threatened releases of pollutants and contaminants from this site, if not addressed by implementing the response actions selected in this Action Memorandum, may have presented an imminent and substantial endangerment to public health, or welfare, or the environment.**

#### V. SELECTED ACTIONS

##### B. Selected Actions

##### 1. Selected action description

Groundwater: Based on the historic surface water (Las Vegas Wash) and groundwater sampling, KMCC constructed a FBR treatment system to treat extracted groundwater for perchlorate from one on-site and two off-site well fields. The FBR treatment system was added to the existing chromium groundwater treatment system. An additional reactor was later added to the FBR system to increase hydraulic and mass loading capacities of the treatment system. In 2004, Tronox took over operations of the groundwater treatment system. Upon the emergence of Reorganized Tronox from bankruptcy, the NERT assumed operations of the groundwater treatment system on February 14, 2011. The groundwater treatment system currently operates under NPDES permit NV0023060 (*for the discharge of the effluent from the groundwater treatment system*), zero discharge permit NEV2001515 (*for the operation of GW-11*), and UIC permit UNEV94218 (*for operation of the onsite recharge trenches*).

Installation and operation of the FBR treatment system greatly reduced the mass loading to the Las Vegas Wash from a historic high of 1,000 pounds per day in 1999 to approximately 70 pounds per day in 2011. This decreased the intake of perchlorate in the drinking water supply for the residents of Southern Nevada, Arizona, and Southern California.

Further pilot testing and optimization studies will be needed to determine whether additional treatment systems will be necessary. Such efforts will be pursued as part of the FFS process for groundwater.

Extent of contamination will be monitored on a regular schedule to ensure capture and extent of perchlorate and chromium VI plumes.

NDEP has established a procedure for any groundwater extraction / dewatering permitting that includes a map and database search for any known LUST and Corrective Action sites in the vicinity of the permit request. The

project officer(s) for the identified site(s) is contacted for comment and input for monitoring, sampling, and disposal of the extracted groundwater.

Soil: Based on contaminant concentration results from the Phase B sampling as reported in the Removal Action Work Plans for Remediation Zones A through E, excavation of soil with contaminant concentrations greater than respective BCLs was approved and commenced during 2010. Excavation depth was predetermined based on the Phase B sampling results. Additional pre-confirmation sampling was conducted to further refine the planned extent of excavation. Visually impacted soil was discovered in several excavations and in some cases the visually impacted soil continued past the predetermined excavation limits. Sampling and excavation of these visually impacted soils was conducted. Excavation of the visually impacted soils has greatly increased the original scope of soil removal and, to date, is still ongoing. Excavation of these impacted soils greatly reduced the risks to site workers and nearby residents from exposure via inhalation and direct contact. Additional soil characterization will need to be conducted to fully assess residual risks and inform the site FS. Leaching and soil gas evaluations may also be indicated depending on the results of the remaining soil characterization subsequent to the ongoing soil removal.

## **2. Contribution to remedial performance**

While the final remedy has not been selected for this site, the groundwater and soil removal actions will, at a minimum, greatly contribute to the long-term effectiveness of the final remedy selected.

## **3. Applicable or relevant and appropriate requirements (ARARs)**

Federal ARARs determined to be practicable for this site are as follows:

- Safe Drinking Water Act (SDWA)
- Toxic Substances Control Act (TSCA)

State and local ARARs determined to be practicable for this site are as follows:

- NAC 445A.200 – 201 (Las Vegas Wash Beneficial Use Standards for Confluence of Las Vegas Wash with Lake Mead to Telephone Line Road).
- NAC 445A.226 – 22755 (Action Levels for Contaminated Sites)
  - Basic Comparison Levels (BCLs): These values are risk-based media concentrations to provide for an initial screening evaluation to assist in risk assessment components such as the evaluation of data usability, determination of extent of contamination, identification of chemicals of potential concern, and identification of preliminary remediation goals. The BCL

values are derived as specified in NAC 445A.2272 and using equations from U.S. Environmental Protection Agency (USEPA) guidance, USEPA toxicity criteria, and USEPA exposure factors.

- NAC 459.970 – 9729 (Certification of Certain Consultants and Contractors)
- NAC 445A.228 – 263 (Discharge Permits)
- NAC 444.965 – 976 (Disposal of Asbestos)
- NAC 445A.810 – 925 (Underground Injection Control)
- NRS 533.437 – 4377 (Groundwater Appropriations – Environmental Permits)
- NRS 535 (Dams and Other Obstructions)
- NAC 534 (Underground Water and Wells)
- Clark County Air Quality Regulations

#### **4. Project schedule**

Groundwater: the chromium treatment system was constructed and operational in 1987. The fluidized bed reactor system for the treatment of perchlorate was constructed and operational in 2004 and, to date, continues to operate.

Soils: excavation of soils greater than ARARs or BCLs commenced in August 2010 and is on-going at the time of this action memo. Excavation is expected to be complete by August 2011.

#### **VI. EXPECTED CHANGE IN THE SITUATION IF ACTION HAD BEEN DELAYED OR NOT TAKEN**

Groundwater: Chromium and perchlorate groundwater contamination would have continued to migrate unimpeded. Perchlorate concentrations in the Colorado River system and the drinking water of approximately 15,000,000 persons may have been impacted at greater than existing ARARs.

Soil: Site workers and nearby residents would have continued to be potentially exposed to contaminants in excess of the ARARs in the surficial and near-surface soils of the site through inhalation of wind-blown dust and direct contact with these soils during construction and/or utility work.

#### **VII. OUTSTANDING POLICY ISSUES**

- EPA promulgation of a perchlorate maximum contaminant level (MCL): the timing and value of a perchlorate MCL is unknown at the finalization of this action memorandum.
- EPA promulgation of a chromium VI MCL: the timing and value of a chromium VI MCL is unknown at the finalization of this action memorandum.

## VIII. ENFORCEMENT

The potentially responsible parties (PRPs) have been identified for this site. At the time of finalization of this action memorandum the PRPs are the Nevada Environmental Response Trust (NERT) and the Department of Defense (perchlorate contamination only). Reorganized Tronox's obligations for legacy liabilities have been discharged through the bankruptcy, effective February 14, 2011. There is a pending lawsuit to determine what, if any, responsibility for the costs of remediation KMCC and its parent company, Anadarko, have for these legacy liabilities.

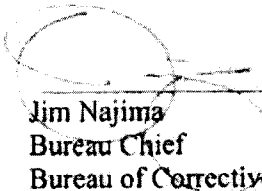
## IX. RECOMMENDATIONS

This memorandum documents NDEP's decision to compel the above-described groundwater and soil removal actions for the Henderson Property, in Clark County, Nevada, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the site located in the NDEP-Las Vegas Office.

Soil and groundwater conditions at the site meet the NCP section 300.415(b)(2) criteria for a removal and I recommend approval of the removal actions that have been and are currently being implemented as described in this action memorandum.

Approval

Disapproval

  
\_\_\_\_\_  
Jim Najima  
Bureau Chief  
Bureau of Corrective Actions  
Nevada Division of Environmental Protection

August 4, 2011  
Date

**APPENDIX A**  
**REFERENCES**



- (1985, KMC) Geohydrological Investigation Kerr-McGee Chemical Corporation Henderson Facility, Kerr-McGee Corp. (July 1985)
- (1985, NDEP) "Enforcement Action for Failure to Complete Approved Site Remediation Activities and Show Cause Meeting, Tronox LLC, (Tronox) Henderson, Nevada, NDEP Facility ID Number 8-000539." NDEP Letter. (December 14, 2009).
- (1987, KMC) Chromium Mitigation Program Performance Report, Kerr-McGee Corp. Engineering Services (November 18, 1987).
- (1993, KMC) Groundwater Interception System Evaluation Report, Chromium Mitigation Program Kerr-McGee Chemical Corporation Henderson, Nevada, Kerr-McGee Corp. (September 15, 1993).
- (1994, NDEP) "Phase II Letter of Understanding Between NDEP and Kerr-McGee Chemical Corporation (KMCC)", NDEP Letter. (August 15, 1994).
- (1997, ENSR) Phase II Environmental Conditions Assessment, Kerr-McGee Chemical Corporation, Henderson, Nevada, ENSR International. (August 1997).
- (1998A, KMC) Phase II Groundwater Perchlorate Investigation Report, Kerr-McGee Chemical LLC Henderson, Nevada Facility, Kerr-McGee Chemical LLC. (July 15, 1998).
- (1998B, KMC) Preliminary Report on a Hydrogeologic Investigation of Channel-Fill Alluvium at the Pittman Lateral, Henderson, Nevada, Kerr-McGee Safety and Environmental Affairs Division. (October 19, 1998).
- (1999, ENSR) Work Plan for the Long-Term Groundwater Perchlorate Removal Action Henderson, Nevada, ENSR. (September 1999).
- (2001, KMC) Seep Area Groundwater Characterization Report Kerr-McGee Chemical LLC Henderson Nevada Facility, Kerr-McGee Chemical LLC. (January 18, 2001).
- (2001, ENSR) Supplementary Phase II Environmental Conditions Assessment Located at Kerr-McGee Chemical LLC, Henderson, Nevada, ENSR. (April 2001).
- (2002, ENSR) Dye Injection Study of the Las Vegas Wash, Nevada, ENSR International, Inc. (March 2002).
- (2005, ENSR) Conceptual Site Model, Kerr-McGee Facility, Henderson, Nevada, ENSR International. (February 2005).
- (2007A, ENSR) Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, Report Figures, Tables, and Plates (2 Volumes), ENSR International. (September 2007).

- (2007B, ENSR) Phase B Source Area Investigation Soil Gas Survey Work Plan, Tronox LLC Facility Henderson, Nevada, ENSR Corp. (March 2007).
- (2008A, ENSR) Phase B Source Area Investigation Work Plan Area I (Northern LOUs), Tronox LLC Facility, Henderson, Nevada, ENSR International, Inc. (April 2008).
- (2008B, ENSR) Phase B Source Area Investigation Work Plan Area II (Central LOUs), Tronox LLC Facility, Henderson, Nevada, ENSR International, Inc. (June 2008).
- (2008C, ENSR) Phase B Source Area Investigation Work Plan Area III (Eastern LOUs), Tronox LLC Facility, Henderson, Nevada, ENSR International, Inc. (June 2008).
- (2008D, ENSR) Phase B Source Area Investigation Work Plan Area IV (Western and Southern LOUs), Tronox LLC Facility, Henderson, Nevada, ENSR International, Inc. (May 2008).
- (2008E, ENSR) Revised Documents for Phase B Area IV Work Plan Tronox LLC, Henderson, Nevada, ENSR International. (July 11, 2008)
- (2010A, NGEM) Annual Remedial Performance Report for Chromium and Perchlorate, July 2009 ... June 2010, Tronox LLC, Henderson, Nevada, Northgate Environmental Management, Inc. (August 27, 2010).
- (2010B, NGEM) Errata to RZ-B and RZ-D Figures Tronox Facility, Henderson, Nevada, Northgate Environmental Management, Inc. (November 29, 2010).
- (2010C, NGEM) Excavation Plan for Phase B Soil Remediation of RZ-E, Addendum to the Remedial Action Work Plan Tronox LLC Henderson, Nevada, Northgate Environmental Management, Inc. (November 3, 2010).
- (2010D, NGEM) Removal Action Work Plan for Phase B Soil Remediation of Remediation Zones RZ-B through RZ-E, Tronox LLC, Henderson, Nevada, Northgate Environmental Management, Inc. (May 4, 2010).
- (2010E, NGEM) Revised Excavation Plan for Phase B Soil Remediation of RZ-B, Tronox LLC, Henderson, Nevada, Northgate Environmental Management, Inc. (August 20, 2010).
- (2010F, NGEM) Revised Excavation Plan for Phase B Soil Remediation of RZ-C, Tronox LLC, Henderson, Nevada, Northgate Environmental Management, Inc. (September 1, 2010).

- (2010G, NGEM) Revised Excavation Plan for Phase B Soil Remediation of RZ-D, Tronox LLC, Henderson, Nevada, Northgate Environmental Management, Inc. (August 31, 2010).
- (2010H, NGEM) Revised Excavation Plan for Phase B Soil Remediation of RZ-E, Tronox LLC, Henderson, Nevada, Northgate Environmental Management, Inc. (November 3, 2010).
- (2010I, NGEM) "Site-Wide Data Meeting (provided draft data and figures)," Northgate Environmental Management, Inc. (February 5, 2010).
- (2011, ENVIRON) Site Management Plan (SMP) Nevada Environmental Response Trust Site, Henderson, Nevada, ENVIRON International Corp. (March 2011).
- (2011, Lease) "Single Tenant Industrial Lease", Le Petomane XXVII, Inc. and Tronox LLC. (February 14, 2011).

**APPENDIX B**

**FIGURES**

**APPENDIX C**

**TABLES**

LOU Identification and Associated Contaminants		
LOU #	Name	Identified Potential Contaminants
1	Trade Effluent Settling Ponds	Muriatic acid Hydrochloric acid VOCs (benzene derivatives) SVOCs DDT Hexavalent Chromium Perchlorate Chlorate Ammonia Specific composition unknown waste streams acidic and caustic process liquors solids from waste neutralization processes hydrochloric acids liquid wastes metal containin liquid wastes
2	Open area south of Trade Effluent Settling Ponds area	Specific composition unknown acidic and caustic process liquors solids from waste neutralization processes hydrochloric acids liquid wastes metal containin liquid wastes
3	Air emissions associated with industiral processes	Not identified
4	Hardesty Chemical Company site	Muriatic acid Hydrochloric acid Sulfuric acid VOCs (benzene derivatives) SVOCs Arsenic DDT
5	On-Site portion of Beta Ditch + diversion ditch north of Pond C-1	Metals Hexavalent chromium Perchlorate Cyanide Sulfates Carbonates Phosphates Chloride Sulfide Ammonia Organochlorine pesticides
6	Unnamed drainage ditch segment	Not identified
7	Old Pond P-2 and associated conveyance facilities	Hexavalent chromium Chloride Chlorate Perchlorate Ammonia
8	Old P-3 Pond and associated conveyance facilities	Hexavalent chromium Chloride Chlorate Perchlorate Ammonia

LOU #	Name	Identified Potential Contaminants
9	New P-2 and associated piping	Hexavalent chromium Chloride Chlorate Perchlorate Ammonia
10	On-Site Hazardous Waste Landfill	Sulfuric acid Metals Hexavalent Chromium Boron Manganese Chloride Chlorate Perchlorate Sodium hexametaphosphates Ammonia
11	Sodium chlorate filter cake holding area	Hexavalent chromium
12	Hazardous Waste Storage Area	Hexavalent chromium
13	Pond S-1	Metals Hexavalent chromium Boron Manganese Chlorate Perchlorate Ammonia Sodium hexametaphosphates Sulfuric acid
14	Pond P-1 and associated conveyance piping	Metals Hexavalent chromium Boron Manganese Chlorate Perchlorate Ammonia Sodium hexametaphosphates Sulfuric acid
15	Platinum drying unit	Metals Platinum Hexavalent chromium Chlorate Perchlorate Ammonia
16 / 17	Ponds AP-1, AP-2, and AP-3 and associated transfer lines	Metals Hexavalent chromium Magnesium Sulfates Carbonates Sulfide Perchlorate Chlorate Ammonia

LOU #	Name	Identified Potential Contaminants
18	Pond AP-4	Metals Hexavalent chromium Magnesium Sulfates Carbonates Sulfide Perchlorate Chlorate Ammonia
19	Ponds AP-5 & AP-6	Metals Hexavalent chromium Perchlorate Chlorate Ammonia
20	Pond C-I and associated piping	Metals Hexavalent chromium Boron VOCs SVOCs Chlorate Perchlorate Phosphates Sulfates Carbonates Borates Boron trichloride Boron tribromide
21	Pond Mn-I and associated piping	Metals Magnesium Manganese Manganese dioxide Boron Hexavalent chromium Perchlorate Chlorate Sodium hexametaphosphate
22	Pond WC-W and associated piping	Metals Magnesium Manganese Manganese dioxide Boron Hexavalent chromium Perchlorate Chlorate Sodium hexametaphosphate Hypochlorite



LOU #	Name	Identified Potential Contaminants
23	Pond WC-E and associated piping	Metals Magnesium Manganese Manganese dioxide Boron Hexavalent chromium Perchlorate Chlorate Sodium hexametaphosphate Hypochlorite
24	Leach beds, associated conveyance facilities and Mn tailings area	Metals Manganese Trace heavy metals
25	Process hardware storage area	Metals Hexavalent chromium Chlorate residue Perchlorate residue Ammonia residue
26	Trash storage area	Metals Chlorate Perchlorate Ammonia
27	PCB storage area	PCBs
28	Hazardous Waste Storage Area	Metals Hexavalent chromium Perchlorate VOCs SVOCs
29	Solid waste dumpsters	Metals Perchlorate
30	AP Plant area - Pad 35	Hexavalent chromium Perchlorate Chlorate Ammonia
31	Drum recycling area	Metals Perchlorate Chlorate
32	Groundwater remediation unit	Metals Hexavalent chromium Total chromium Iron Perchlorate
33	Sodium perchlorate platinum by-product filter	Metals Chromium Platinum Perchlorate Chlorate Ammonia

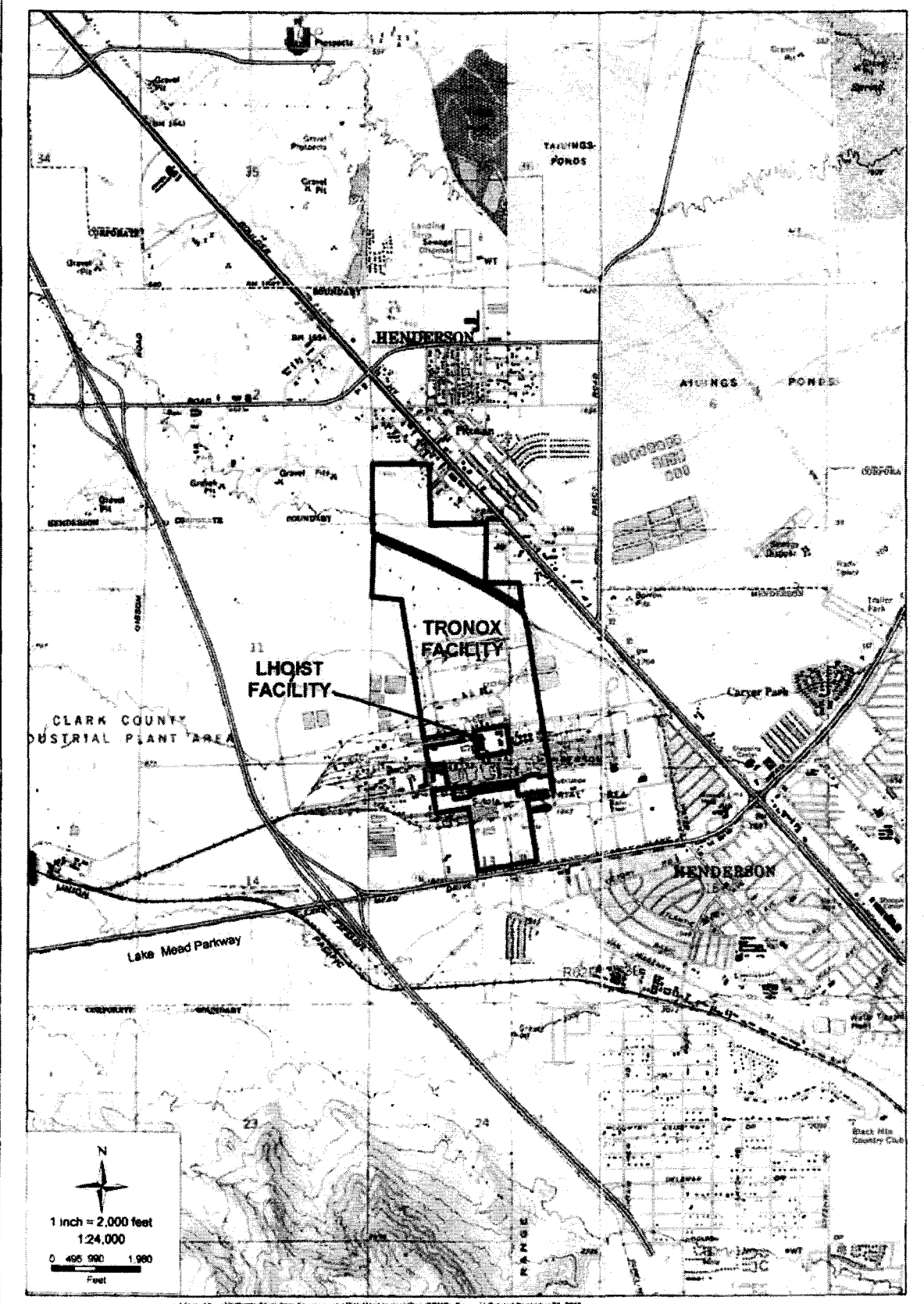
LOU #	Name	Identified Potential Contaminants
34	Former Mn tailings area	Metals Manganese Heavy metals Sulfuric acid
35	Truck emptying/dumping site	Unknown - reportedly "inorganic wastes"
36	Former satellite accumulation point - Maintenance Shop	Metals Acid wastes VOCs Caustics
37	Former satellite accumulation point - Unit 6 Maintenance Shop	Metals VOCs SVOCs
38	Former satellite accumulation point - AP Change House & Laboratory	Metals Hexavalent chromium Perchlorate Chlorate Ammonia Acids Caustics VOCs Alcohols Dilute formaldehyde titrant
39	Satellite accumulation point - AP maintenance shop	Metals Perchlorate VOCs
40	PCB transformer spill	PCBs VOCs SVOCs
41	Unit 1 tenant stains	VOCs SVOCs
42	Unit 2 salt conveyor	Sodium chloride
43	Unit 4 and old Sodium Chlorate Plant decommissioning	Metals Hexavalent chromium Manganese Boron Perchlorate Chlorate Ammonia
44	Unit 6 basement	Metals Manganese Sodium hexametaphosphate
45	Diesel storage tanks	Metals VOCs SVOCs

LOU #	Name	Identified Potential Contaminants
46	Former old main cooling tower and recirculation lines	Metals Manganese Hexavalent chromium Boron Sulfates Carbonates Phosphates Chloride Sulfide Perchlorate Chlorate Ammonia
47	Leach Plant area Mn ore piles (current & historic)	Metals Manganese
48	Leach Plant analyte tanks	Manganese sulfate Manganese dioxide Sulfuric acid
49	Leach Plant area sulfuric acid storage tanks	Sulfuric acid Acid solutions
50	Leach Plant area leach lines	Metals
51	Leach Plant area transfer lines	Metals Acid solutions
52	AP Plant area Screening Building, Dryer Building, and associated sump	Metals Hexavalent chromium Perchlorate Chlorate Ammonia
53	AP Plant area Tank Farm	Metals Hexavalent chromium Perchlorate Chlorate Ammonia Caustics
54	AP Plant area Change House / laboratory spetic tank	Metals Perchlorate Ammonia Chlorate
55	Area affected by July 1990 fire	
56	AP Plant area old builing D-1 washdown	Perchlorate
57	AP Plant area transfer lines to sodium chlorate process	Metals Hexavalent chromium Iron Perchlorate Ammonia
58	AP Plant area New D-1 Building washdown	Perchlorate

LOU #	Name	Identified Potential Contaminants
59	Storm sewer system	Metals Hexavalent chromium Magnesium Platinum Barium Zinc Nickel Lead Manganese Perchlorate Chlorate Ammonia Sodium Borate Sulfide Sulfuric acid
60	Acid drain system	Magnesium Hexavalent chromium Boron Barium Arsenic Cadmium Lead Selenium Sodium hydroxide Hydrochloric acid Sulfuric acid Boric acid Chlorides Phosphates Hexametaphosphates Sodium Sulfite ions Borate ions Borax Soda ash Pickle liquor (iron sulfate) Chlorides Perchlorate Ammonia Chlorate Sulfates
61	Unit 5 basement & old Sodium Chlorate Plant decommission	Metals Hexavalent chromium Boron Manganese Perchlorate Chlorate Ammonia

LOU #	Name	Identified Potential Contaminants
62	State Industries, Inc site	Metals Iron Total chromium Barium Lead VOCs SVOCs Sulfuric acid (spent) Borax Soda ash Phosphate chemicals cyanide (spent)
63	J.B. Kelley Trucking Inc. site	Metals Barite Magnesium VOCs SVOCs Soda ash Lime Magnesium chloride brine Ferric chloride Hydrochloric acid Sodium hydrosulfide Sodium hydroxide Titanium tetrachloride
64	Koch Materials Company site	Metals VOCs SVOCs
65	Nevada precast concrete products, Green Ventures International, Buckles Construction Company, and Ebony Construction sites	Metals Barite Magnesium VOCs SVOCs Soda ash Lime Magnesium chloride brine Ferric chloride Hydrochloric acid Sodium hydrosulfide Sodium hydroxide Titanium tetrachloride
66	Above-ground diesel storage tank leased by Flintkote Company on Chemstar property	VOCs SVOCs
67	Delbert Madsen and estate of Delbert Madsen site	Not identified
68	Southern Nevada Auto Parts site	Not identified
69	Dillon Potter site	Not identified

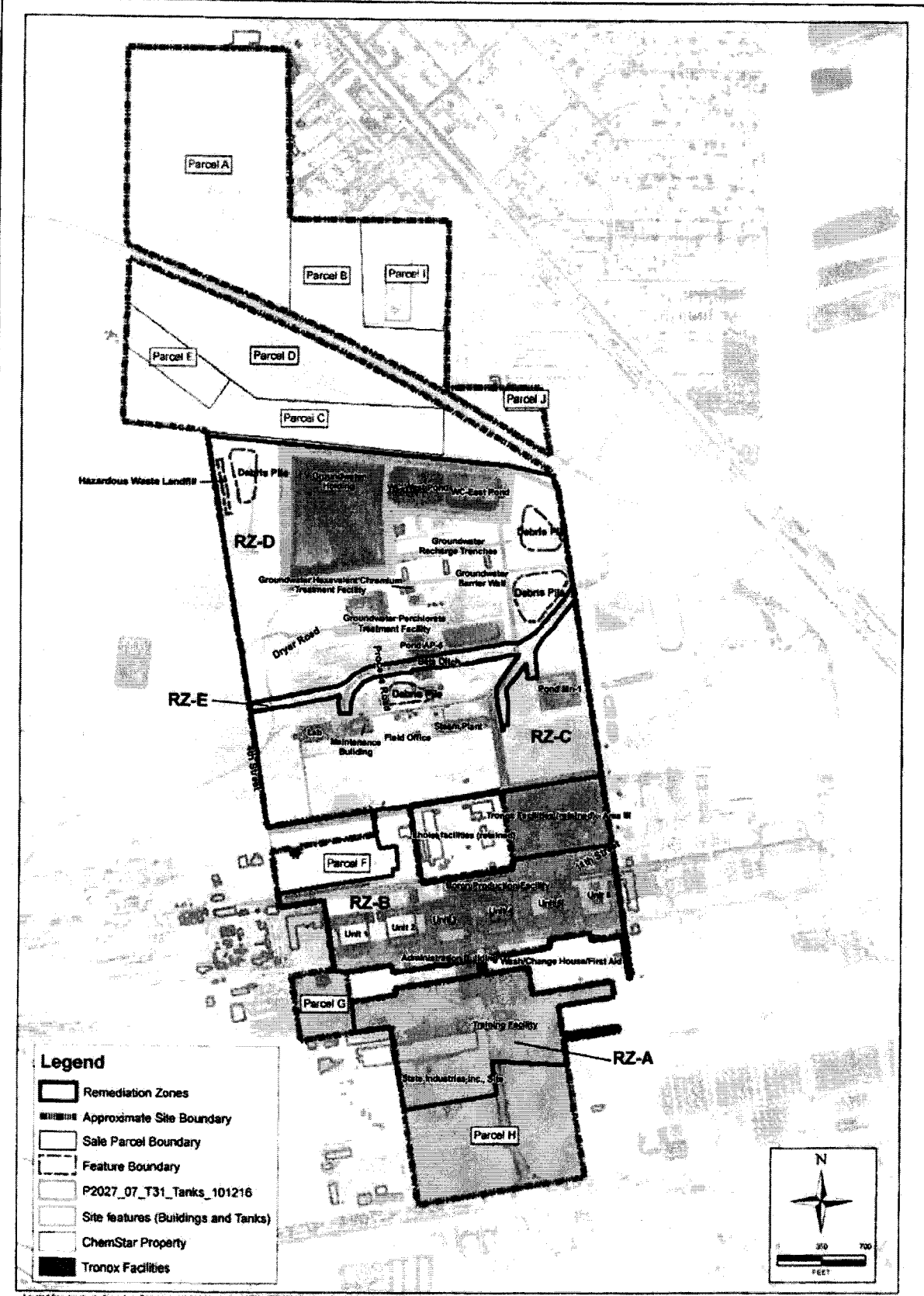
LOU #	Name	Identified Potential Contaminants
70	US Vanadium Leasehold	Metals Tungsten Alluminum Molybdenum Iron Boron Cobalt Ammonia Acids



Adapted from Northgate figure from Environmental Risk Management Plan (ERMP) Tronox LLC dated December 30, 2010

FIGURE NUMBER <b>1</b>	<b>SITE LOCATION MAP</b>			REVISIONS			
	Site Management Plan Nevada Environmental Response Trust Henderson, Nevada			NO.	DESCRIPTION	DATE	BY
SHEET NUMBER <b>1</b>	SCALE	DATE	PROJECT NUMBER	DESIGNED BY			
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				APPROVED BY			



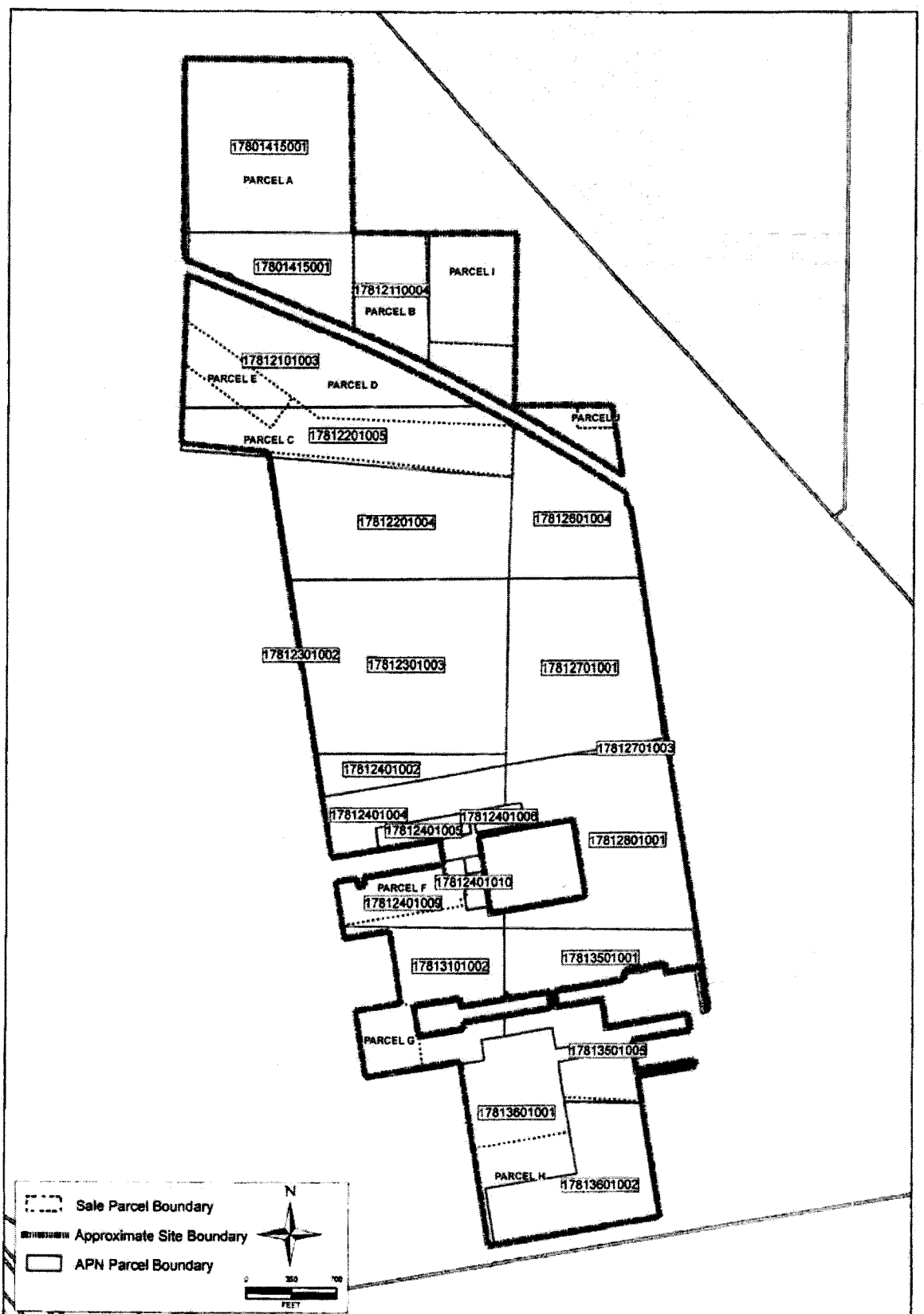


Adapted from hexagone figure from Environmental Risk Management Plan (ERMP) Tronox, LLC dated December 20, 2010

NORTH 1" = 700'	<b>SITE FEATURES</b> See Management Plan Nevada Environmental Response Trust Henderson, Nevada			DESIGNED BY NOEL CHECKED BY DATE		REVISIONS NO. DESCRIPTION DATE BY	
	SCALE 1" = 700'	DATE 12/20/2010	PROJECT NUMBER 21-26210A	APPROVED BY NAME	DATE	NO. DESCRIPTION DATE BY	NO. DESCRIPTION DATE BY

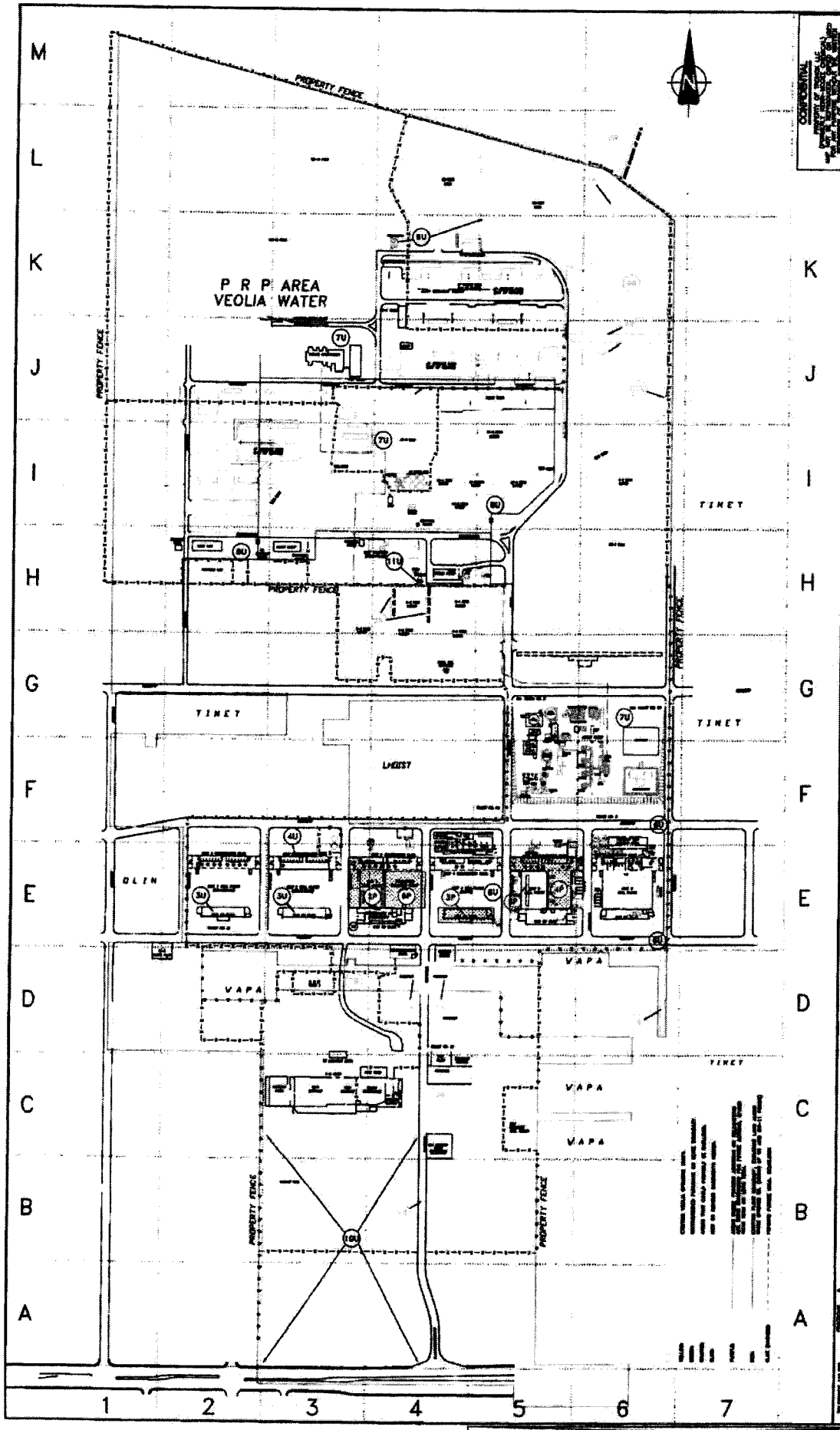
**ENVIRON**





Adapted from Northgate figure from Environmental Risk Management Plan (ERMP) Tronox LLC dated December 28, 2010

TRONOX SALE PARCELS Site Management Plan Nevada Environmental Response Trust Henderson, Nevada	SCALE 1 in. = 700 ft	DATE 12/10/2010	PROJECT NUMBER 21-26210A	DESIGNED BY AGM	CHECKED BY CR	APPROVED BY AGM	REVISIONS DESCRIPTION DATE BY	<b>ENVIRON</b>



**CONFIDENTIAL**

DATE: 01/11/2011

DRAWING NO. A-00-1-169

SCALE: AS SHOWN

**TRONOX DUE DILIGENCE HENDERSON FACILITY SITE MAP**

500 W. Lake Mead Parkway, Henderson, NV 89015 P.O. Box 65 Henderson, NV 89009

**TRONOX LLC**

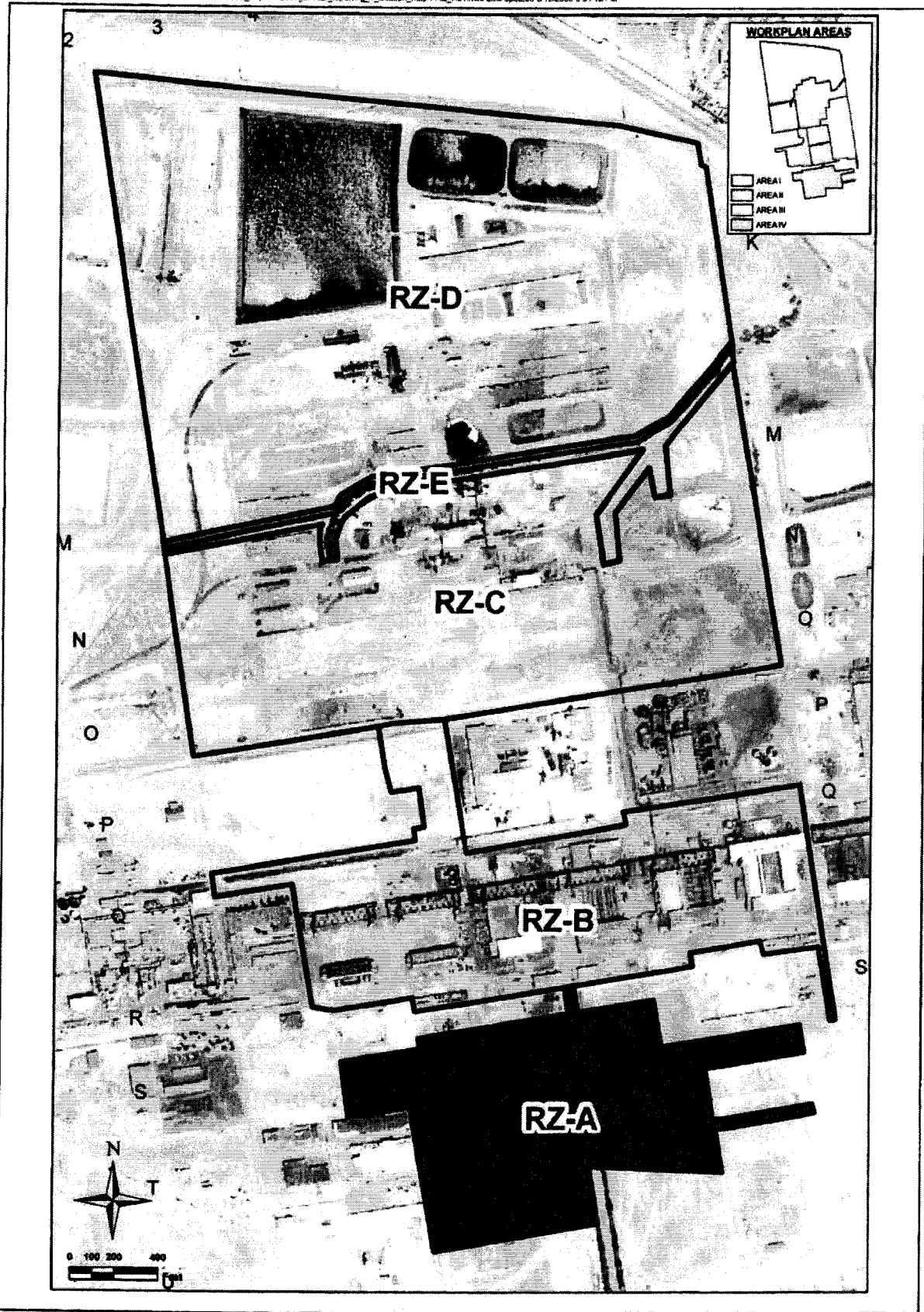
**TRONOX**

NO.	DATE	DESCRIPTION	BY	CHKD BY
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02	JAN. 12, 2011	REVISED PER COMMENTS	J. W. BROWN	J. W. BROWN
03	JAN. 12, 2011	REVISED PER COMMENTS	J. W. BROWN	J. W. BROWN
04	JAN. 12, 2011	REVISED PER COMMENTS	J. W. BROWN	J. W. BROWN
05	JAN. 12, 2011	REVISED PER COMMENTS	J. W. BROWN	J. W. BROWN
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50	JAN. 12, 2011	REVISED PER COMMENTS	J. W. BROWN	J. W. BROWN

DATE: 01/11/2011

DRAWING NO. A-00-1-169

SCALE: AS SHOWN

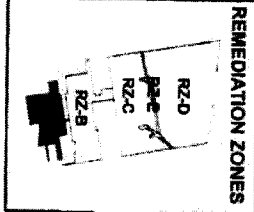
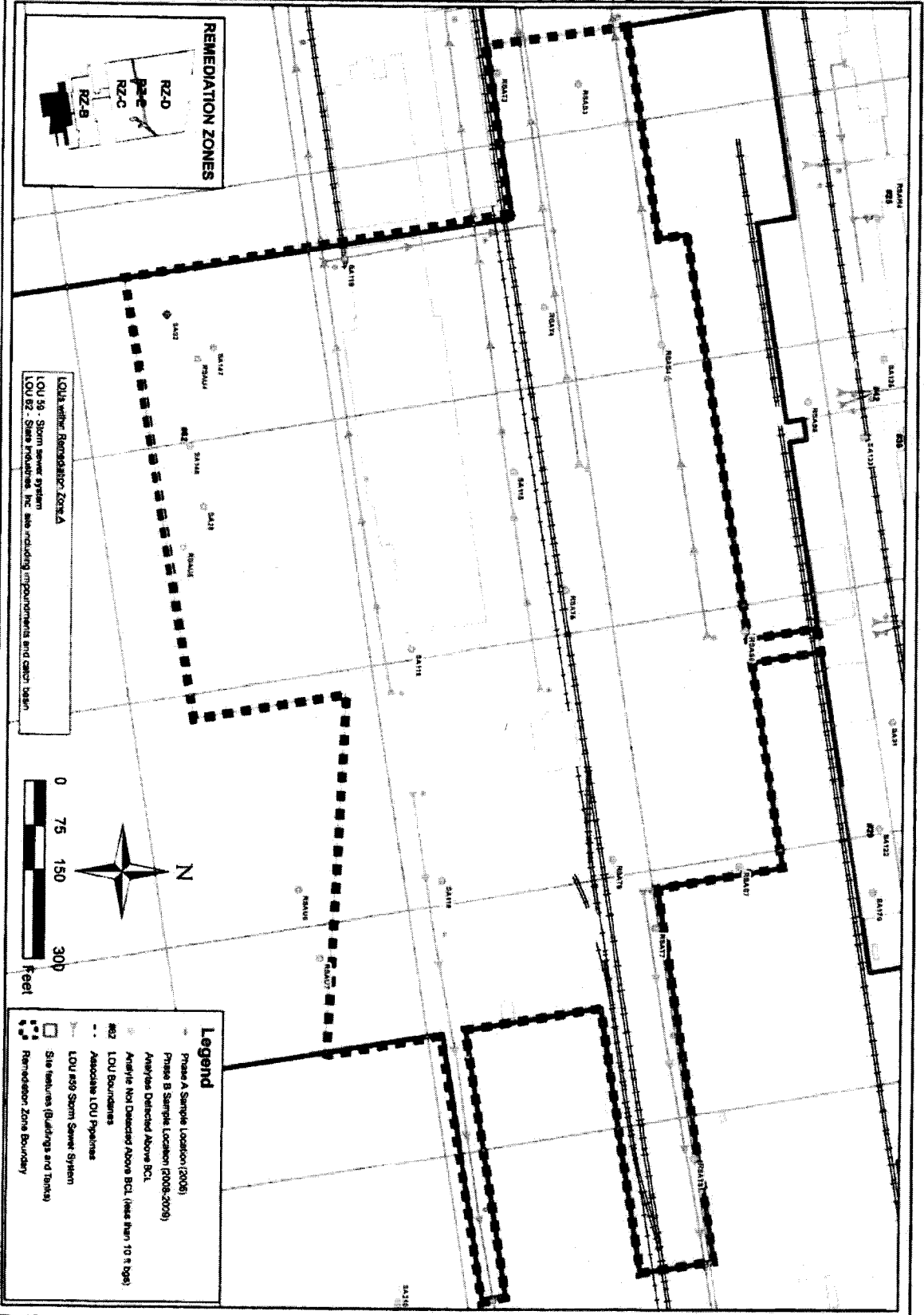


SHEET NUMBER	<b>2</b>	
	TOTAL SHEETS	
<b>REMEDIATION ZONE A</b> Tronox LLC Henderson Nevada		
SCALE	DATE	PROJECT NUMBER
1 inch = 400 feet	06/17/10	2027.07

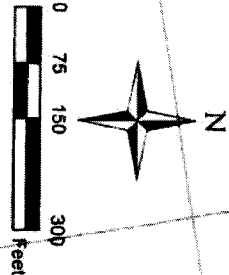
DESIGNED BY		REVISIONS		
NO.	NO.	DESCRIPTION	DATE	BY
DESIGNED BY	AGE			
CHECKED BY	AGE			
APPROVED BY	AGE			

  
 environmental management inc.  


<http://www.northgate.com>



LDU 99 - Storm sewer system site including impoundments and catch basin  
 LDU 92 - Storm Sewerage, Inc. site including impoundments and catch basin



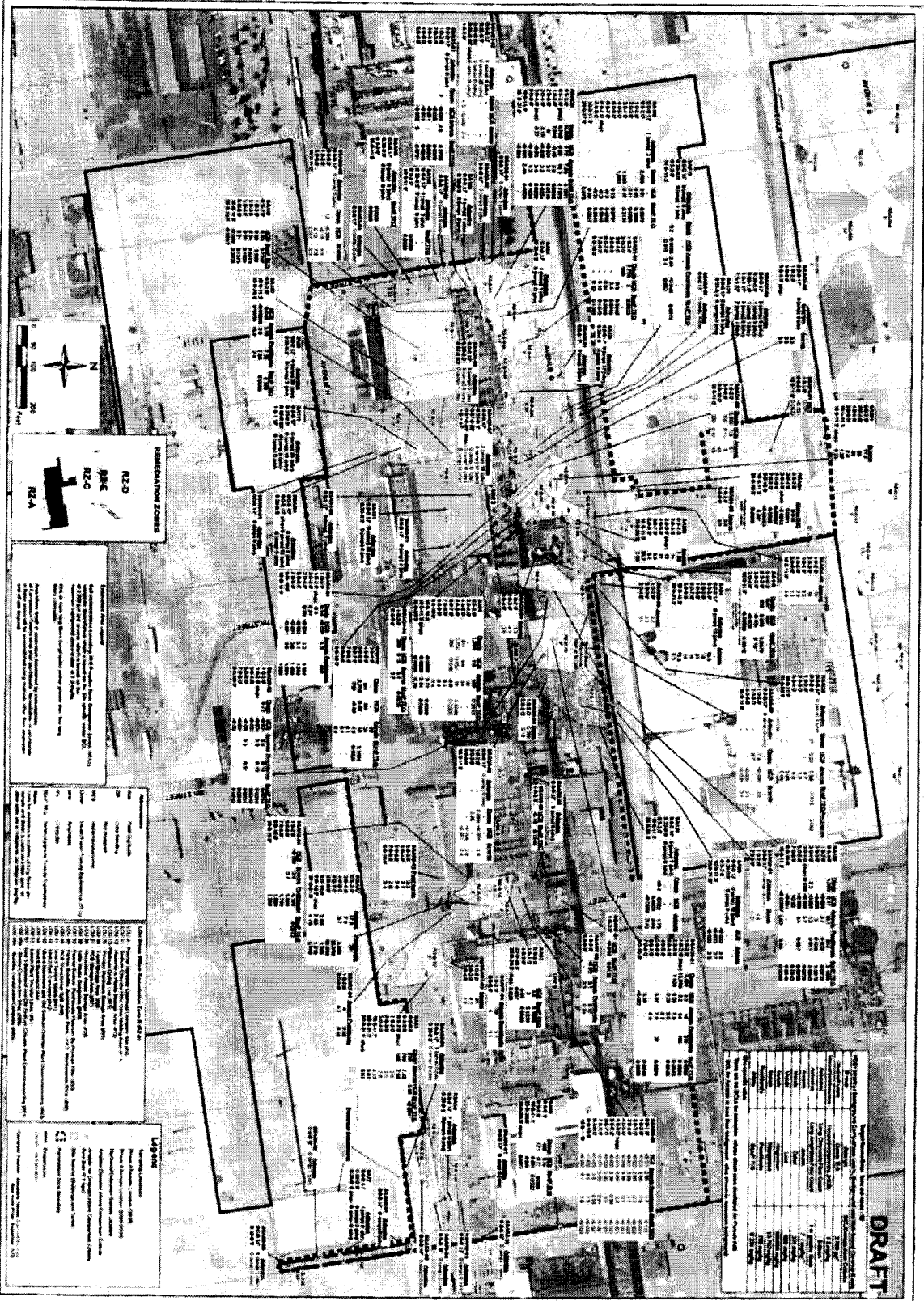
- Legend**
- Phase A Sample Location (2008)
  - Phase B Sample Location (2008-2009)
  - Analytes Detected Above BCL
  - Analyte Not Detected Above BCL (less than 10 ft deep)
  - LDU Boundaries
  - Associated LDU Pipelines
  - LDU 99 Storm Sewer System
  - Site Features (Buildings and Tanks)
  - Remediation Zone Boundary

<b>REMEDIATION ZONE A SOIL SAMPLE LOCATIONS</b>		
Tronox LLC Henderson, Nevada		
SCALE	DATE	PROJECT NUMBER
1 in = 150 ft	08/17/10	2027 07

DESIGNED BY				
NGEM	MO	DESCRIPTION	DATE	BY
DRAWN BY				
CHECKED BY				
APPROVED BY				

**northgate**  
environmental management, inc.

**TRONOX**      <http://www.ngem.com>



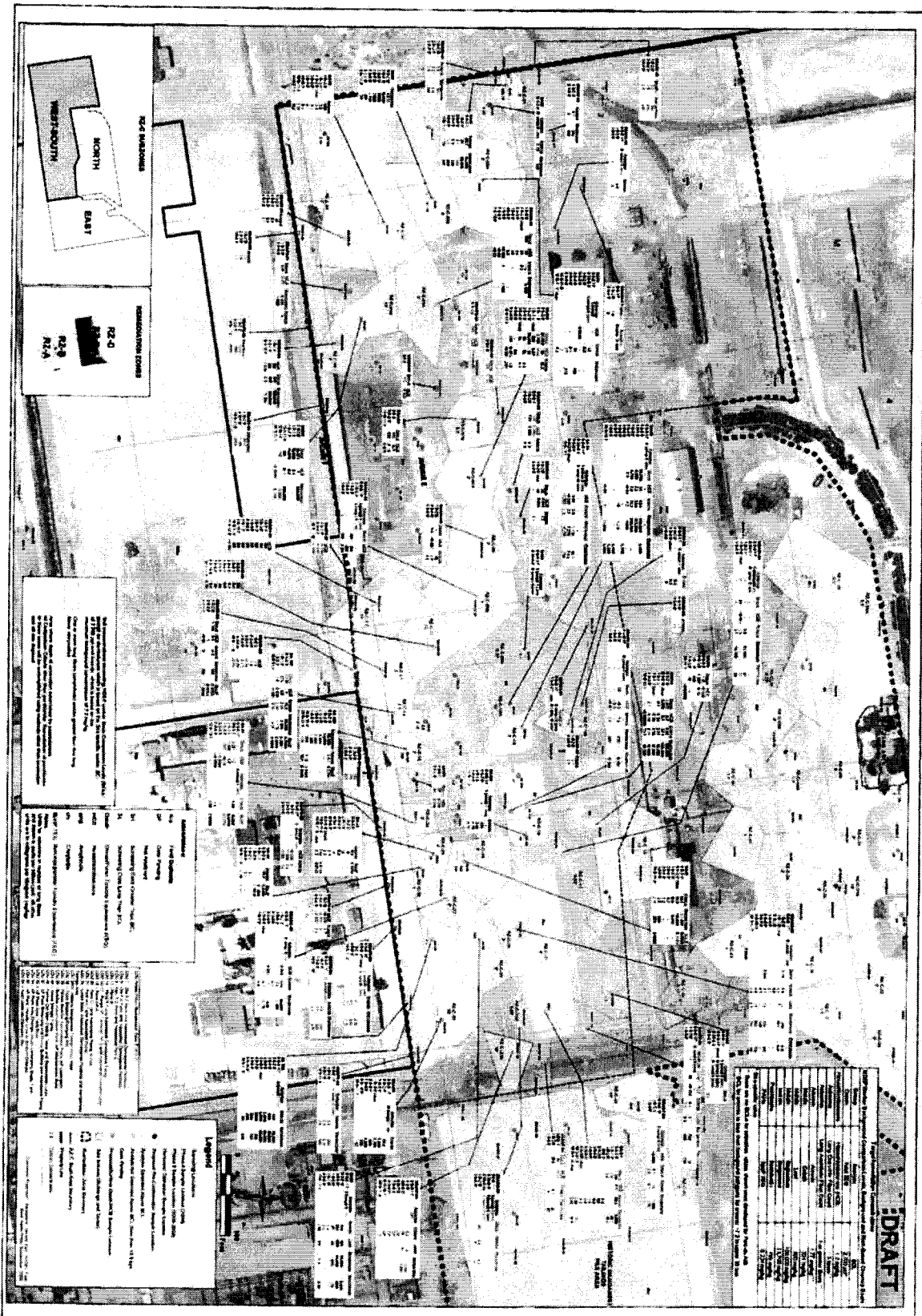
**RZ-B EXCAVATION AREAS AND NATURE AND EXTENT OF CONTAMINATION**  
 RZ-B Excavation Plan  
 Tronox LLC  
 Henderson, Nevada

SCALE 1 in = 100 ft	DATE 11/24/10	PROJECT NUMBER 2027.01 T90
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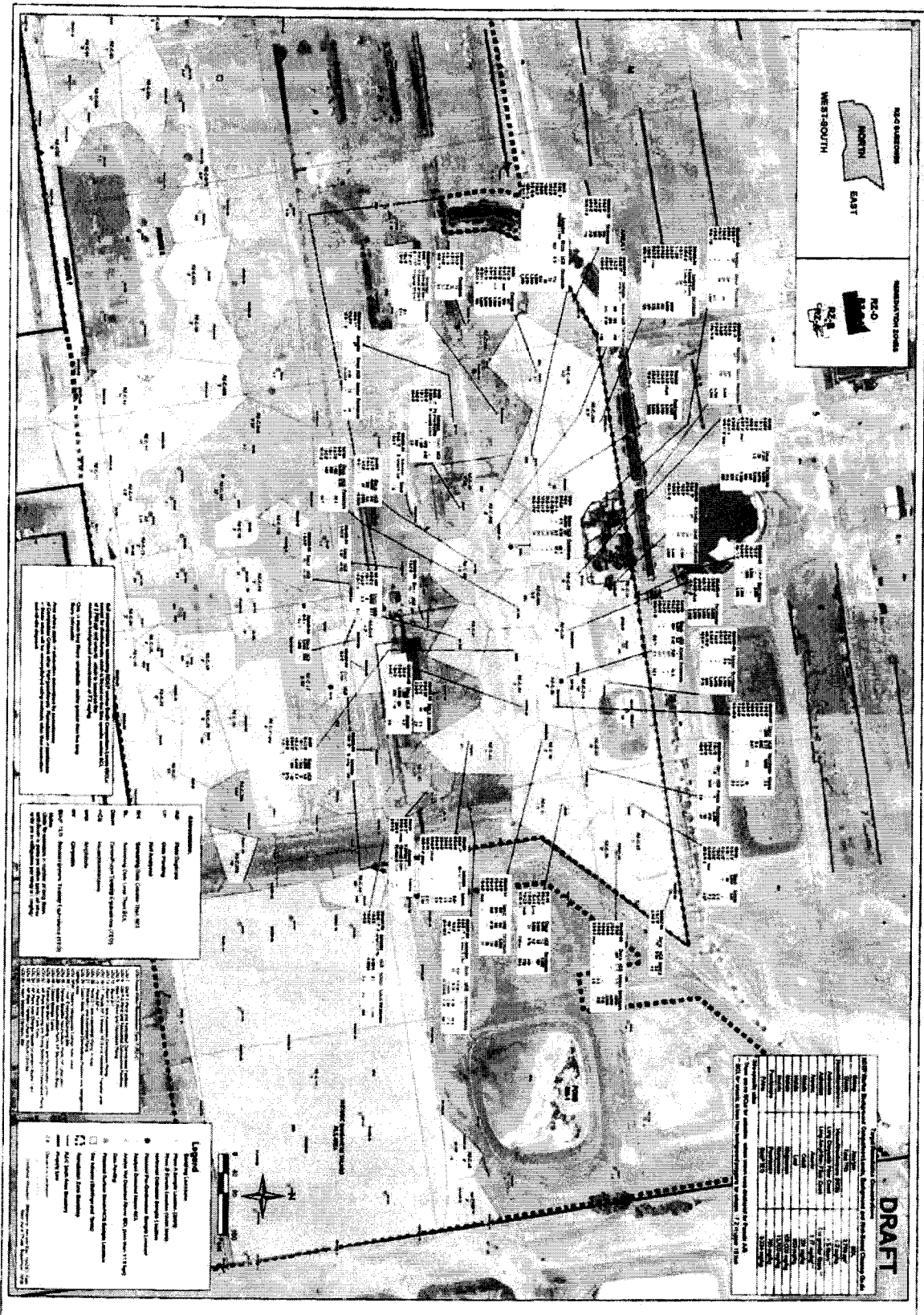
DESIGNED BY	REVISIONS			
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APPROVED BY				
NGEM				

**northgate**  
 environmental management, inc.

**TRONOX** [www.ngem.com](http://www.ngem.com)



28 <small>Sheet No.</small>	<b>REMEDIATION ZONE C-WEST AND -SOUTH EXCAVATION</b> <b>RZ-C Excavation Plan</b> <b>Tronox LLC</b> <b>Henderson, Nevada</b>			<small>DESIGNED BY</small> NGEM	<small>NO</small>	<small>REVISIONS</small> <small>DESCRIPTION</small>	<small>DATE</small>	<small>BY</small>	
	<small>SCALE</small> 1 in = 80 R	<small>DATE</small> 10/12/10	<small>PROJECT NUMBER</small> 2027.01 T90	<small>CHECKED BY</small> NGEM	<small>APPROVED BY</small> NGEM				



1. All work shall be in accordance with the approved Remediation Plan and the Nevada Department of Environmental Protection (NDEP) Order.



2. The contractor shall be responsible for obtaining all necessary permits from the NDEP and the Nevada State Engineer.

3. The contractor shall maintain access to all adjacent properties at all times.

4. The contractor shall provide a daily log of all activities to the NDEP.

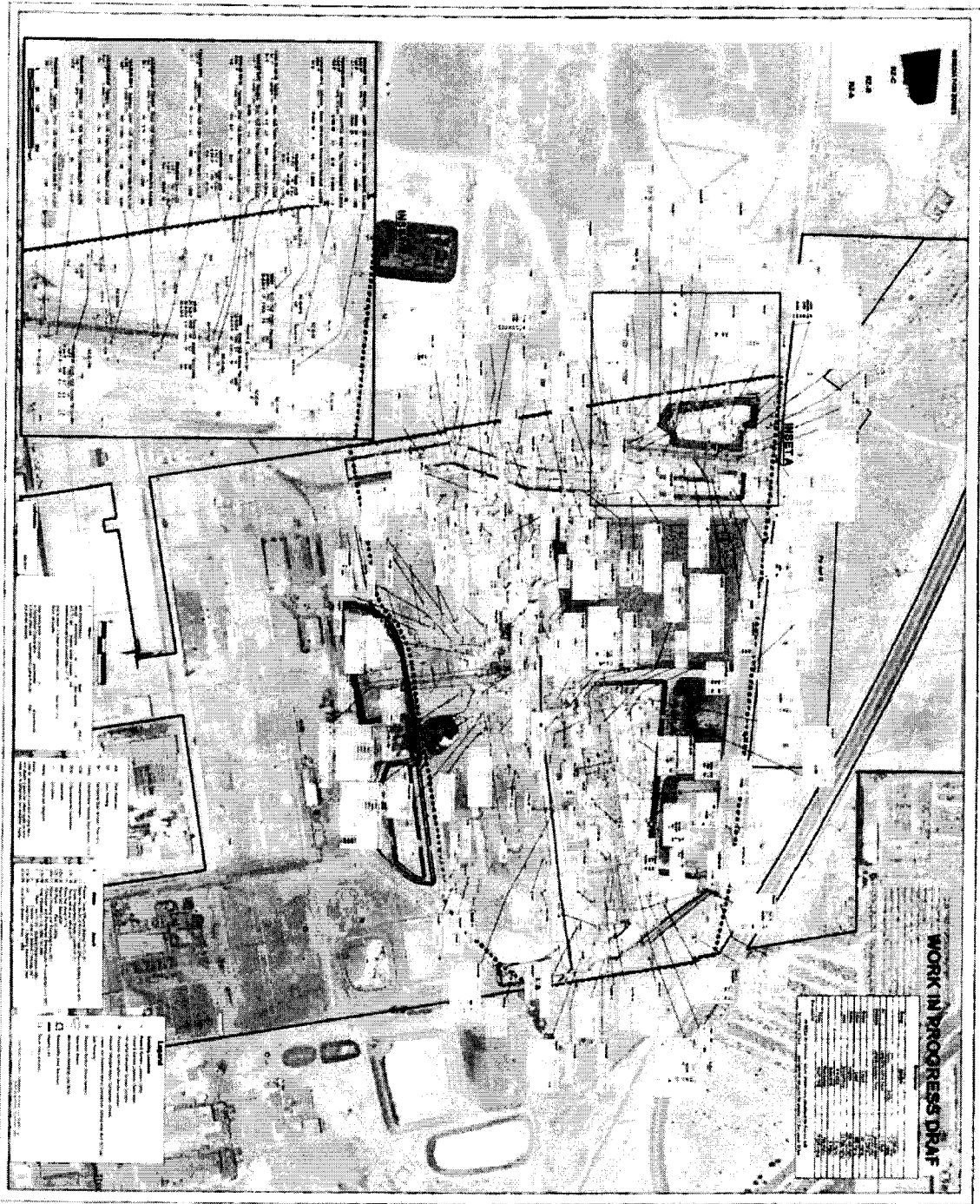
<b>REMEDIATION ZONE C-NORTH EXCAVATION</b> RZ-C Excavation Plan Tronox LLC Henderson, Nevada		
SCALE	DATE	PROJECT NUMBER
1 in = 80 ft	10/12/10	2027.01 T80

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NGEM	NO	DESCRIPTION	DATE
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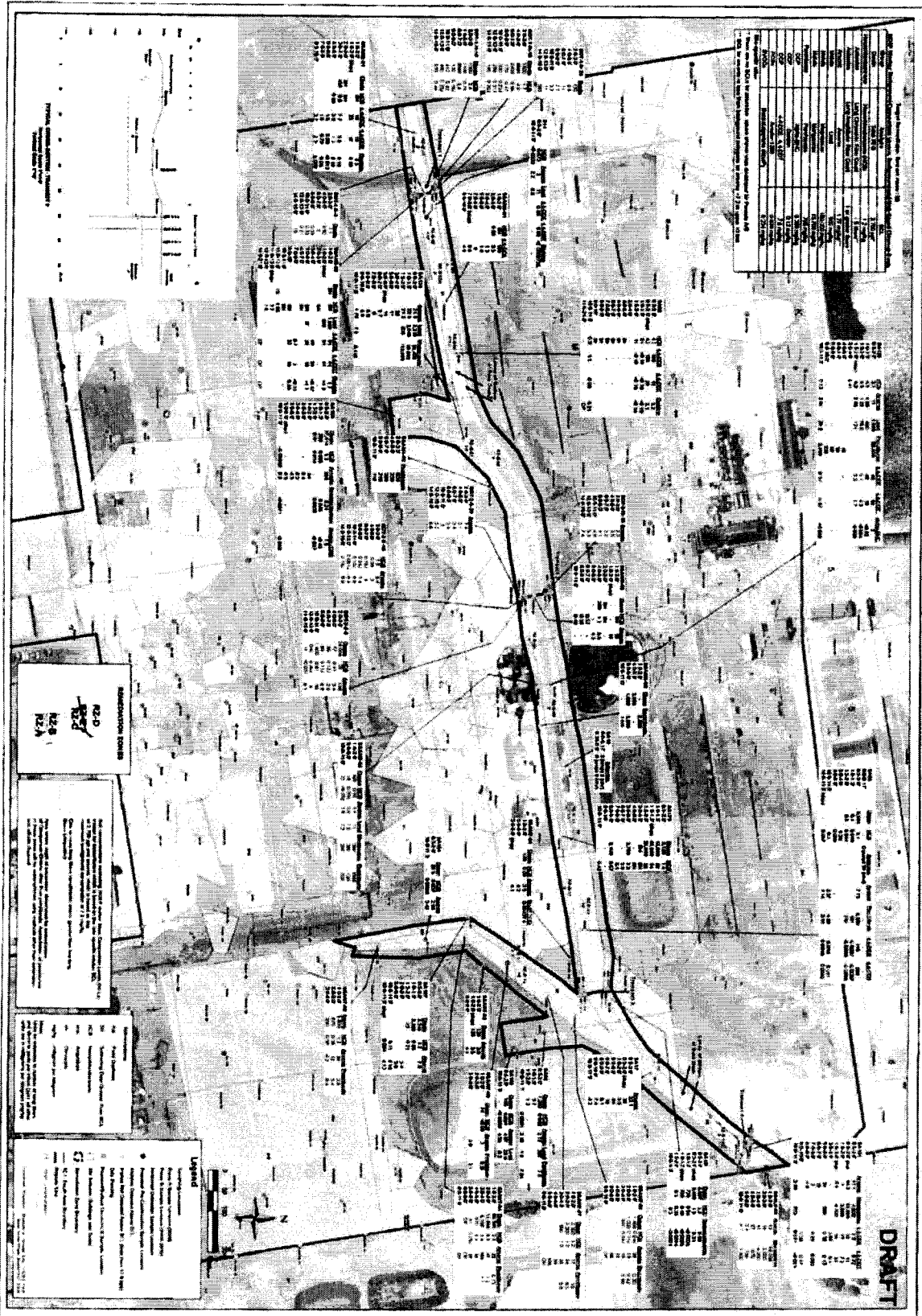
  
 environmental management, inc.  
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<p><b>RZ-D EXCAVATION AREAS AND NATURE AND EXTENT OF CONTAMINATION</b></p> <p>RZ-D Excavation Plan Tronox LLC Henderson Nevada</p>		<p>DESIGNED BY NGE</p> <p>DRAWN BY S</p> <p>CHECKED BY NGEM</p> <p>APPROVED BY NGE</p>	<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS				NO.	DESCRIPTION	DATE	BY									<p><b>G</b></p> <p>entral m me</p> <p><b>TRONOX</b></p> <p>www.tronox.com</p>
REVISIONS																				
NO.	DESCRIPTION	DATE	BY																	
<p>SCALE</p> <p>1 in = 150 ft</p>	<p>DATE</p> <p>11/29/10</p>	<p>PROJECT NUMBER</p> <p>202 01 T90</p>																		



Legend

[Symbol]	Excavation Area
[Symbol]	Extent of Contamination
[Symbol]	Property Lines
[Symbol]	Easements
[Symbol]	Right-of-Way
[Symbol]	Water Features
[Symbol]	Other Features

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**NOTES**

1. All excavation areas shall be excavated to a minimum depth of 4 feet below the existing ground surface.
2. The extent of contamination shall be determined by soil sampling and analysis.
3. All excavation areas shall be backfilled with clean fill material.
4. All excavation areas shall be capped with a minimum 18-inch thick concrete slab.
5. All excavation areas shall be landscaped to match the surrounding area.

**Legend**

- Excavation Area
- Extent of Contamination
- Property Lines
- Easements
- Right-of-Way
- Water Features
- Other Features

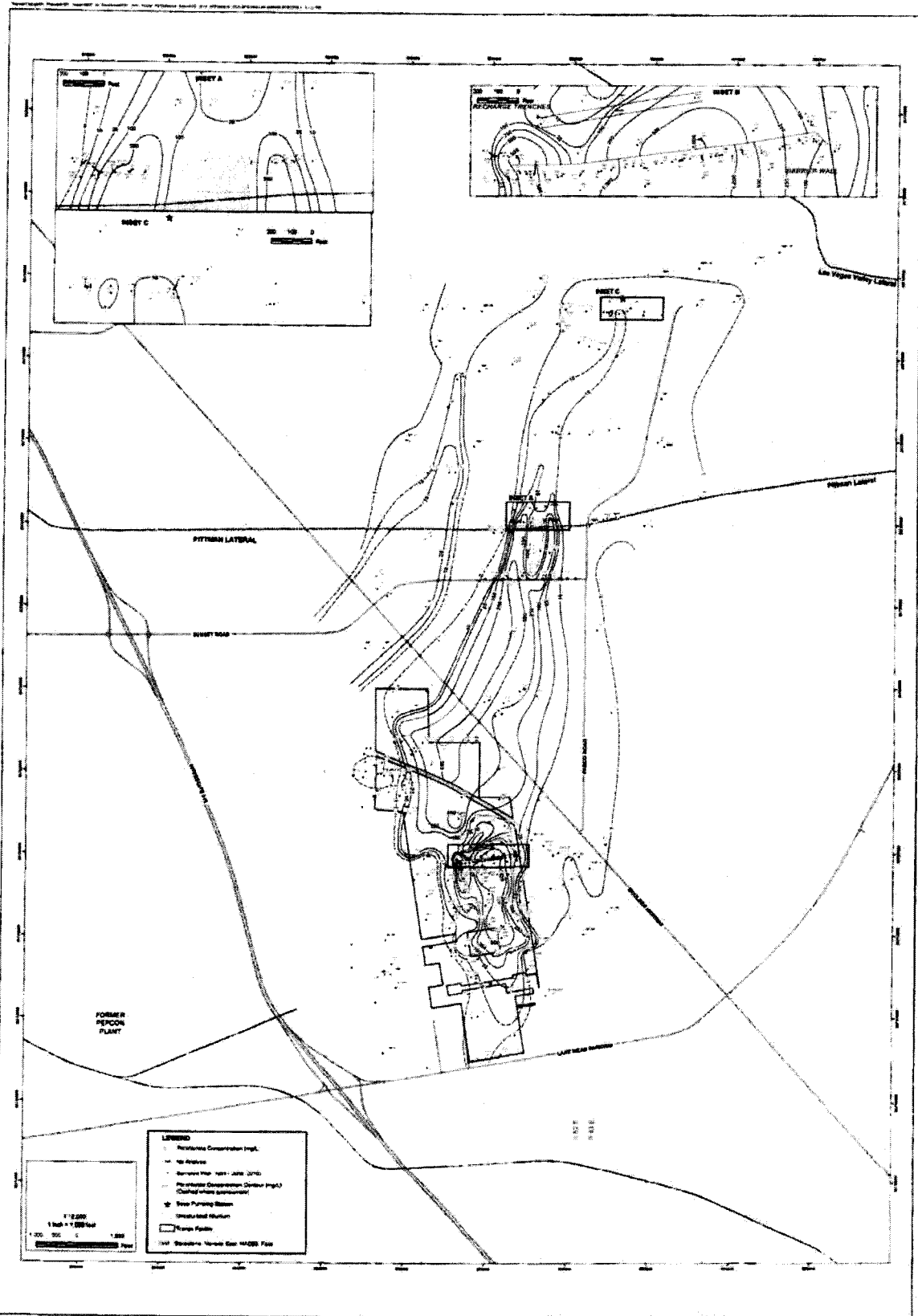
**RZ-E EXCAVATION AREA AND NATURE AND EXTENT OF CONTAMINATION**  
**RZ-E Excavation Plan**  
 Tronox LLC  
 Henderson, Nevada

SCALE 1 in = 100 ft	DATE 11/03/10	PROJECT NUMBER 2027.01 T90
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DESIGNED BY NGEM	REVISIONS		
DRAWN BY OS	NO.	DESCRIPTION	DATE BY
CHECKED BY NGEM			
APPROVED BY NGEM			

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**LEGEND**

- Perchlorate Concentration Impl.
- No Analysis
- Sampled from 1997 - June 2010
- Perchlorate Concentration (Original Impl.)
- Contour where perchlorate
- ★ Free Pumping Station
- Grounded Station
- Pump Pad(s)
- Standalone North East 14000 Feet

1" = 200'  
 1 inch = 1,000 feet  
 1:200  
 1:1000  
 1:2000

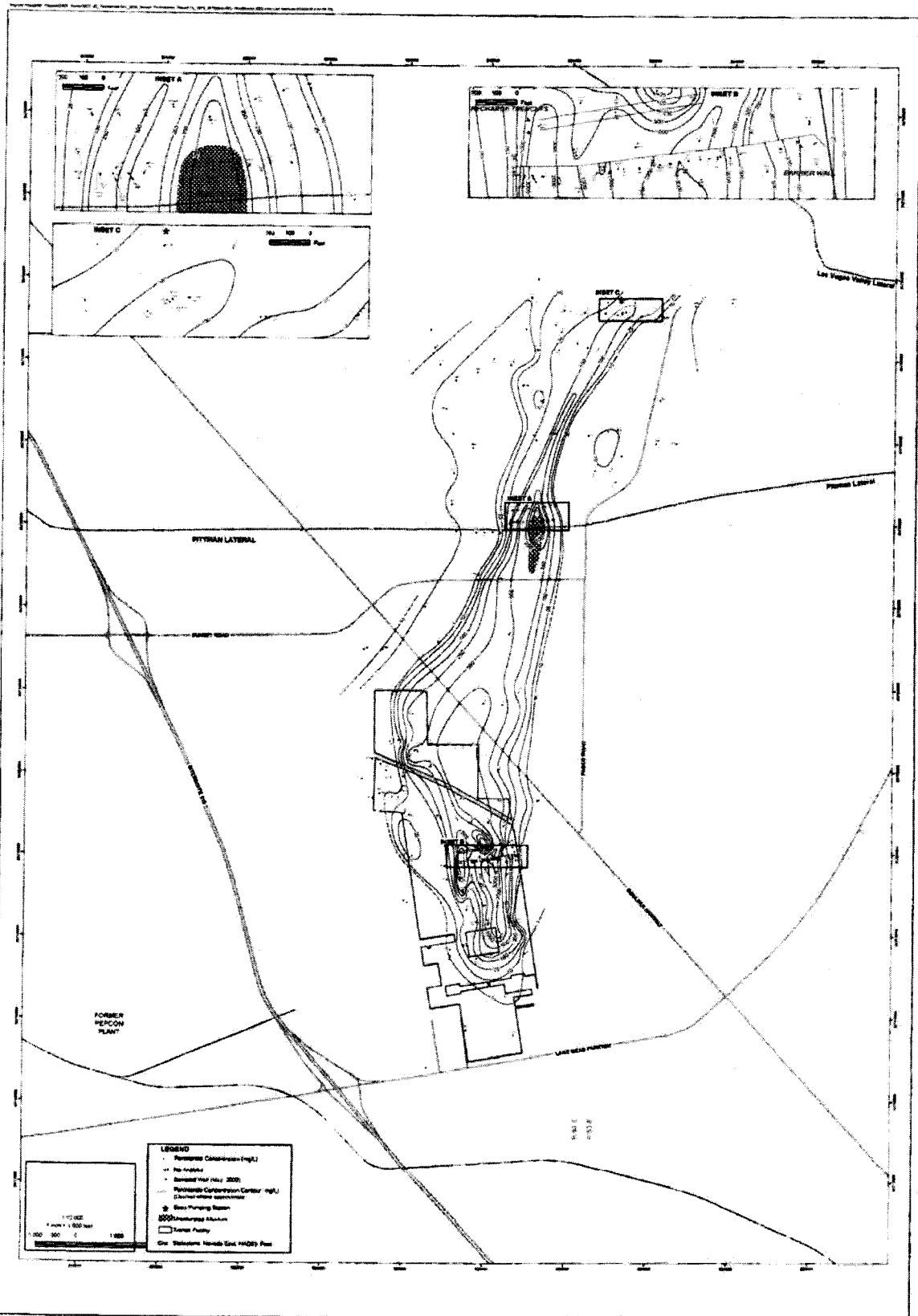
<b>7</b> <small>ENVIRONMENTAL</small> <small>MANAGEMENT</small>	<b>GROUNDWATER PERCHLORATE MAP</b> <b>SHALLOW WATER-BEARING ZONE</b> <b>SECOND QUARTER 2010</b> Annual Performance Report Tronox Facility Henderson, Nevada	DESIGNED BY: R. HARRIS	REVISIONS		
	SCALE: 1" = 200'	DATE: 06/23/10	PROJECT NUMBER: 2007-02-18	NO.   DESCRIPTION   DATE   BY	
	DRAWN BY: R. HARRIS	CHECKED BY: R. HARRIS	APPROVED BY: R. HARRIS		

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SHEET NUMBER <b>7a</b>	<b>GROUNDWATER PERCHLORATE MAP</b> <b>SHALLOW WATER-BEARING ZONE</b> <b>SECOND QUARTER 2002</b> Annual Performance Report Tronox Facility Henderson, Nevada			REVISIONS NO. DESCRIPTION DATE BY	
	SCALE 1" = 12,000'	DATE 08/25/18	PROJECT NUMBER 2007 02 T51	DESIGNED BY HED	CHECKED BY HED

  
 environmental management, inc.  


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1. 10/15/08 2. 11/10/08 3. 12/10/08 4. 01/15/09 5. 02/10/09 6. 03/10/09 7. 04/10/09 8. 05/10/09 9. 06/10/09 10. 07/10/09 11. 08/10/09 12. 09/10/09 13. 10/10/09 14. 11/10/09 15. 12/10/09 16. 01/11/10 17. 02/11/10 18. 03/11/10 19. 04/11/10 20. 05/11/10 21. 06/11/10 22. 07/11/10 23. 08/11/10 24. 09/11/10 25. 10/11/10 26. 11/11/10 27. 12/11/10 28. 01/12/11 29. 02/12/11 30. 03/12/11 31. 04/12/11 32. 05/12/11 33. 06/12/11 34. 07/12/11 35. 08/12/11 36. 09/12/11 37. 10/12/11 38. 11/12/11 39. 12/12/11 40. 01/13/12 41. 02/13/12 42. 03/13/12 43. 04/13/12 44. 05/13/12 45. 06/13/12 46. 07/13/12 47. 08/13/12 48. 09/13/12 49. 10/13/12 50. 11/13/12 51. 12/13/12 52. 01/14/13 53. 02/14/13 54. 03/14/13 55. 04/14/13 56. 05/14/13 57. 06/14/13 58. 07/14/13 59. 08/14/13 60. 09/14/13 61. 10/14/13 62. 11/14/13 63. 12/14/13 64. 01/15/14 65. 02/15/14 66. 03/15/14 67. 04/15/14 68. 05/15/14 69. 06/15/14 70. 07/15/14 71. 08/15/14 72. 09/15/14 73. 10/15/14 74. 11/15/14 75. 12/15/14 76. 01/16/15 77. 02/16/15 78. 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1. LITHOGRAPHED ON 200 LB. WEIGHT PAPER BY THE NATIONAL ARCHIVE SERVICE  
 2. WORKSHEET NUMBER IS APPROXIMATELY 1:1 SCALE  
 3. SEE SHEET 1 FOR THE LOCATION OF THIS SHEET

**Area IV LOUs**

LOU Number	Name of LOU
4	Honey Chemical Company Site prior to J. B. Kober Operation
5	Process Ventilation Storage Area
6	High Storage Area
7	PCB Storage Area
8	Production Waste Storage Area
9	PCB Storage Area
10	PCB Storage Area
11	PCB Storage Area
12	PCB Storage Area
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49	PCB Storage Area
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51	PCB Storage Area
52	PCB Storage Area
53	PCB Storage Area
54	PCB Storage Area
55	PCB Storage Area

LOU # 52 is located in lower of (transmission) grid August 15, 1994.  
 See Plate A for additional LOU information

**LEGEND**

- Tronox Facility Boundary
- LOU Boundary in Area IV
- LOU Boundary in other areas
- LOU #52 Storm Drain System with manholes and sumps with flow direction in Area IV
- LOU #53 Storm Drain System with manholes and sumps with flow direction in other areas
- LOU #54 Storm Drain System with manholes and sumps with flow direction in other areas
- LOU #55 Acid Drain System with manholes and sumps with flow direction in Area IV
- LOU #56 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #57 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #58 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #59 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #60 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #61 Acid Drain System with manholes and sumps with flow direction in other areas
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- LOU #98 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #99 Acid Drain System with manholes and sumps with flow direction in other areas
- LOU #100 Acid Drain System with manholes and sumps with flow direction in other areas

Phase B Workplan Areas

- Area I
- Area II
- Area III
- Area IV

Land Ownership

- Tronox
- Chemstar
- BM



PHASE NUMBER <b>3</b>	<b>PHASE B AREA IV LOUs</b> <b>AREA IV WORKPLAN</b> <b>PHASE B SOURCE AREA INVESTIGATION</b> <b>TRONOX FACILITY</b> <b>HENDERSON, NEVADA</b>	<b>ENSR</b> ENSR CORPORATION 1220 AVENIDA ACASO CAMARILLO, CALIFORNIA 93012 PHONE: (805) 386-3775 FAX: (805) 386-3577 WEB: <a href="http://www.ensr.aecom.com">HTTP://WWW.ENSR.AECOM.COM</a>	<b>DESIGNED BY</b> M. Fleck <b>DRAWN BY</b> M. Scop <b>CHECKED BY</b> C. Schnell <b>APPROVED BY</b> B. Ho																								
SCALE AS SHOWN	DATE 5/14/2008	PROJECT NUMBER 04020-023-430	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REVISIONS				NO.	DESCRIPTION	DATE	BY																
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**EXHIBIT B**

**EXHIBIT B**



## **Exhibit B**

### **Nevada Environmental Response Trust Site**

#### **Interim Consent Agreement Scope of Work**

Consent Agreement Activities Schedule – this schedule will identify the activities and relationships between those activities for completion of Trust Work as well as milestone dates for submittal of the following listed Scope of Work (SOW) Deliverables, including any interim Deliverables that may be necessary to complete the SOW Deliverables. Monthly (or as otherwise approved by NDEP) updates of this schedule will be submitted to NDEP showing progress on Trust Work and Deliverables as it compares to the most current, approved baseline schedule. Deliverable submittal deadlines will be proposed in the first schedule submittal and once approved by NDEP, a Deliverable submittal deadline may not be changed without written approval from NDEP per Section IX (Deliverables Requiring Division Approval) of the Interim Consent Agreement. Prior to December 7, 2011, the Trust shall complete the soil excavation activities, consistent with Section IV of the Consent Agreement, including preparation of the Site Management Plan and the Interim Soil Removal Actions Completion Report. The remainder of the Trust Work shall be included in a schedule to be submitted to NDEP by January 13, 2012.

Annual Remedial Performance and Groundwater Monitoring Report – this report should at a minimum include an evaluation of current groundwater and contaminant mass flux capture (including any necessary numerical groundwater modeling) at each extraction well field for groundwater remediation; an estimation of contaminant mass bypassing the Seep Area well field and entering the Las Vegas Wash; an evaluation of system performance at each soil and groundwater remediation system in terms of contaminant mass flux capture or destruction and bypass; and presentation and evaluation of annual groundwater conditions and quality with corresponding maps and figures. Data Validation Summary Reports (“DVSRs”) for all groundwater sampling results should be submitted in conjunction with this report.

Interim Soil Removal Actions Completion Report – this report will be submitted to document the soil removal actions at the Henderson Property. At a minimum, this report will include final grade elevations; post-excavation and post-final grading figures; pre-confirmation, post-excavation, and any other sampling results associated with the soil removal actions; and figures showing all sampling results associated with the soil removal. DVSRs for all data not previously validated and approved by NDEP should be submitted in conjunction with this report.

Site Management Plan – this plan will present the procedures that will be required for any soil or groundwater disturbance at the Henderson Property to ensure personal safety and environmental protectiveness. This plan establishes procedures for soil and groundwater disturbances and includes procedures for NERT and NDEP notification, Deliverable submittal, contingency plans for previously undiscovered soil and/or groundwater contamination, required analyses and frequency of sampling based on location within the Henderson Property. The Site Management

Plan also designates Excavation Control Areas, which are areas where soil contamination is known to have been left in place above NDEP's Basic Comparison Levels (BCLs) or has not been properly characterized for potential contamination. Implementation of this plan will be required of all Site Occupants and their contractors. This plan will incorporate reference to anticipated or completed Environmental Covenants for the Henderson Property.

Site-wide Groundwater Sampling and Analysis Plan – this plan will establish location and frequency for required groundwater monitoring and sampling. Additionally, this plan will specify contaminant analyses required for each sampling location and will be based on the Phase B Sampling and Analysis Plan groundwater sampling results as well as include any permit-required groundwater sampling.

Community Relations Plan – this plan will present how community outreach will be conducted, including public data and file access, site fact sheet development and periodic updates, stakeholder communications, community meetings, and NDEP and NERT points of contact.

Groundwater Extraction and Treatment System Optimization Work Plan – this plan will present how the current interim groundwater treatment system and associated well fields will be evaluated in order to determine the most efficient and cost-effective removal of contaminant mass and reduction of contaminant flux migration.

Groundwater Extraction and Treatment System Optimization Report – this report will present the results and recommendations from implementing the Groundwater Extraction and Treatment System Optimization Work Plan.

Technology Screening Report and Remedial Investigation / Feasibility Study Work Plan – this plan will identify a screened list of potentially feasible technologies that are believed to be capable of meeting the preliminary remedial action objectives for the Henderson Property. These identified technologies will be retained for analysis and, where appropriate, bench or field-scale treatability testing and analysis in the Feasibility Study. Additionally, the plan will include a description and mapping of current site characterization and monitoring data with the identification of any data gaps to be addressed by additional field sampling and chemical analysis; any necessary Sampling and Analysis Plans; updated Site Safety and Health Plan; and Baseline Human Health Risk Assessment plan.

Treatability Study Work Plans – these plans will propose methodologies for conducting any bench or pilot-scale treatability studies identified in the Technology Screening Report recommendations; the results of which will be used in the Remedial Investigation and Feasibility Study.

Remedial Investigation and Feasibility Study – this report will include a baseline risk assessment consistent with 40 C.F.R. § 300.430(d), compile the historic and current information related to the Henderson Property, update the property's Conceptual Site Model, and present the results of

any additional investigation performed as a result of identified data gaps in the available information. The report will also present and utilize the results of recommended and approved treatability studies and will be consistent with the requirements of 40 C.F.R. 300.430(e). The recommendation(s) from this study will be used to determine Final Remedy Selection for the Henderson Property, which will be implemented under a future Phase III Consent Agreement.

**EXHIBIT C**

**EXHIBIT C**

October 7, 2010

Mr. Mark Paris  
Basic Remediation Company  
875 West Warm Springs Road  
Henderson, NV 89011

Mr. Matt Paque  
Tronox LLC  
3301 NW 150<sup>th</sup>  
Oklahoma City, OK 73134

Mr. Curt Richards  
Olin Corporation  
3855 North Ocoee Street, Suite 200  
Cleveland, TN 37312

Mr. Joe Kelly  
Montrose Chemical Corp of CA  
600 Ericksen Ave NE, Suite 380  
Bainbridge Island, WA 98110

Mr. Brian Spiller  
Stauffer Management Co LLC  
1800 Concord Pike  
Wilmington, DE 19850-6438

Mr. Craig Wilkinson  
Titanium Metals Corporation  
PO Box 2128  
Henderson, NV 89009

Re. **BMI Plant Sites and Common Areas Projects, Henderson, Nevada**  
*NDEP Personnel Changes*  
*Requirements for submittal of Deliverables to NDEP*  
*Distribution of Deliverables to other Companies*

Dear Sirs:

The parties listed above shall be referred to as "the Companies" for the purposes of this letter.

As you may be aware, NDEP staff assigned to the BMI Plant Sites and Common Areas Projects has recently changed. Overall supervision of the cases with the NDEP Bureau of Corrective Actions, Special Projects Branch, and case oversight for the TIMET and WAPA sites will now be the responsibility of William Knight who will also retain the Olin Plant Site (including Stauffer Management Company and Montrose Chemical Corporation of CA)(H-000536 and H-000540). Direct case oversight of the BMI Common and Exclusion Areas (H-000688) will remain with Greg Lovato. Direct case oversight and primary point of contact for the Tronox Plant Site (H-000539) will remain assigned to Shannon Harbour. For Facility H-000537 (TIMET), this notification serves as the Companies' official notice of the NDEP Project Coordinator.

As a result of this change, Attachment A provides general requirements for submittal of all Deliverables to the NDEP effective immediately. Please note that the position of "BMI Compliance Coordinator" has been eliminated, so mailing lists should be revised to reflect this change. Attachment B provides appropriate methods for distributing Deliverables that are submitted to the NDEP and to the remainder of the Companies listed above (and their designees). The Companies are requested to provide all Deliverables submitted to the NDEP simultaneously to all other Companies to facilitate the efficient transfer and use of this information.

NDEP looks forward to continuing work with each of the Companies individually and collectively on these significant projects.

Please contact the undersigned with any questions at 702-486-2850 ext.252 or [wknight@ndep.nv.gov](mailto:wknight@ndep.nv.gov).

Sincerely,

William Knight, P.E.  
Supervisor, special Projects Branch  
Bureau of Corrective Actions

WCK:s

cc: Jim Najima, NDEP, BCA, Carson City  
Shannon Harbour, NDEP, BCA, Carson City  
Greg Lovato, NDEP, BCA, Carson City  
Todd Croft, NDEP, BCA, Las Vegas  
Barry Conaty, Holland & Hart LLP  
Brenda Pohlmann, City of Henderson  
Mitch Kaplan, U.S. Environmental Protection Agency  
Ebrahim Juma, Clark County Clean Water Team  
Joe Leedy, Clark County Clean Water Team  
Kathryn Hoffmann, Clark County Clean Water Team  
Ranajit Sahu, BRC  
Lee Ferris, BRC  
Kirk Stowers, Broadbent & Associates  
Victoria Tyson, Tyson Contracting  
George Crouse, Syngenta Crop Protection, Inc.  
Michael Bellotti, Olin Corporation  
Cindi Byrns, Olin Corporation  
Nicholas Pogoncheff, PES Environmental, Inc.  
Lynne Preslo, GeoEco  
Andrew Barnes, Geosyntec  
Ed Modiano, de maximis  
Lee Erickson, Stauffer Management Company LLC  
Mike Skromyda, Tronox LLC  
Keith Bailey, Environmental Answers  
Susan Crowley, Crowley Environmental LLC  
Jeff Gibson, AMPAC  
Paul Sundberg, Montrose Chemical Corporation  
Deni Chambers, Northgate Environmental Management, Inc.  
Dave Gratson, Neptune and Company  
Paul Black, Neptune and Company, Inc.  
Teri Copeland, 5737 Kanan Rd., #182  
Paul Hackenberry, Hackenberry Associates  
Kelly Black, Neptune and Company, Inc.  
Kurt Fehling, The Fehling Group, LLC  
Joanne Otani, 2160 Santa Cruz Avenue  
Joe McGinley, McGinley and Associates  
Brian Giroux, McGinley and Associates  
Brian Rakvica, McGinley and Associates

cc: Robert Infelise, Cox Castle Nicholson, 555 California Street, 10<sup>th</sup> Floor, San Francisco, CA 94104-1513  
Michael Ford, Bryan Cave, One Renaissance Square, Two North Central Avenue, Suite 2200,  
Phoenix, AZ 85004  
Lee Erickson, Stauffer Management Company, P.O.Box 18890, Golden, Colorado 80402  
Andrew Barnes, Geosyntec, 2100 Main Street, Suite 150, Huntington Beach, CA 92648  
Lee Farris, BRC, 875 W. Warm Springs Road, Henderson, NV 89011

**Attachment A**  
**October 7, 2010 General Requirements for**  
**Deliverables Submitted to the NDEP**

Described below are Deliverable distribution requirements for all Deliverables submitted by the Companies to NDEP. Compliance with these procedures is mandatory and will facilitate timely and effective review by the NDEP and its contractors of all material provided to the NDEP. These requirements apply to all Deliverables and are separate from the Electronic Data Deliverable (EDD) requirements. EDD requirements are a specific part of the Deliverables and must also be complied with. These requirements are effectively immediately will remain in place until modified by the NDEP.

For file sizes under 4 MB, electronic copies of Deliverables requested in Electronic Copy shall be transmitted as attachments via e-mail to the addresses below. For files sizes 4 MB or greater, a notification shall be sent to the e-mail addresses below and access to electronic files shall be provided via a web based file exchange service. Alternately, a CD or DVD can be mailed to the parties listed below to satisfy the electronic copy requirements.

Deliverable Description	Deliverable Recipients		Format	
	Name	Address	Hard Copy	Electronic Copy and E-mail Address
All Companies All Deliverables (including Data Validation Summary Reports [DVSRs])	William Knight	2030 E. Flamingo Rd. Suite 230 Las Vegas, NV	Yes - 2 DVSRs – 1 only	Yes (via CD or DVD attached to hard copy, and e-mail/electronic transfer) <a href="mailto:wknight@ndep.nv.gov">wknight@ndep.nv.gov</a>
All Companies All Deliverables (excluding DVSRs)	NDEP c/o McGinley and Associates	815 Maestro Drive Reno, NV 89511	Yes – 1	No
	NDEP c/o McGinley and Associates	8275 S. Eastern, Suite 220 Las Vegas, NV 89123	Yes - 1	Yes (via CD or DVD attached to hard copy, no e-mail or electronic transfer) <a href="mailto:brakvica@mcgin.com">brakvica@mcgin.com</a>
All Companies Data Validation Summary Reports Only	David Gratson Neptune, Inc.	N/A	No	Yes <a href="mailto:dgratson@neptuneinc.org">dgratson@neptuneinc.org</a>
H-000688	Greg Lovato	901 S. Stewart St, Ste 4001 Carson City, NV 89701-5249	No	Yes <a href="mailto:glovato@ndep.nv.gov">glovato@ndep.nv.gov</a>
H-000539	Shannon Harbour	901 S. Stewart St, Ste 4001 Carson City, NV 89701-5249	Yes – 1 (excluding DVSRs)	Yes <a href="mailto:sharbour@ndep.nv.gov">sharbour@ndep.nv.gov</a> (including DVSRs)
	Greg Lovato		No	Yes <a href="mailto:glovato@ndep.nv.gov">glovato@ndep.nv.gov</a>
Specific Deliverables	As specified in NDEP Correspondence regarding subject Deliverables, NDEP will direct that Deliverables be provided to other specific consultants to NDEP			



**Attachment B**  
**April 5, 2010 Guidelines**  
**Distribution of Deliverables to All Companies**

NDEP requests that the Companies provide access to electronic copies of all Deliverables to the following designated contacts for each of the Companies.

For file sizes under 4 MB, electronic copies of Deliverables requested in Electronic Copy can be transmitted as attachments via e-mail to the addresses below. For files sizes 4 MB or greater, a notification can be sent to the e-mail addresses below and access to electronic files shall be provided via a web based file exchange service. Alternately, a CD or DVD can be mailed to the parties listed below to satisfy the electronic copy requirements.

Company	Name	E-mail Address
BMI	Mark Paris	<a href="mailto:mparis@landwellco.com">mparis@landwellco.com</a>
	Ranjit Sahu	<a href="mailto:sahuron@earthlink.net">sahuron@earthlink.net</a>
de maximis	Ed Modiano	<a href="mailto:edm@demaximis.com">edm@demaximis.com</a>
Montrose	Joe Kelly	<a href="mailto:jkelly@montrosechemical.com">jkelly@montrosechemical.com</a>
	Paul Sundberg	<a href="mailto:pvsMrs@pacbell.net">pvsMrs@pacbell.net</a>
	Lynne Preslo	<a href="mailto:lpreslo@aol.com">lpreslo@aol.com</a>
	Brian Waggle	<a href="mailto:bwaggle@hargis.com">bwaggle@hargis.com</a>
Olin	Curt Richards	<a href="mailto:cmrichards@olin.com">cmrichards@olin.com</a>
Stauffer	Lee Erickson	<a href="mailto:Lee.erickson@astrazeneca.com">Lee.erickson@astrazeneca.com</a>
	Nick Pogoncheff	<a href="mailto:npogoncheff@pesenv.com">npogoncheff@pesenv.com</a>
Syngenta	George Crouse	<a href="mailto:george.crouse@syngenta.com">george.crouse@syngenta.com</a>
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