DRAFT

Transportation Plan

for Phase B Soil Remediation of Remediation Zones RZ-B through RZ-E
Tronox, LLC
Henderson, Nevada

March 30, 2010

Prepared For:

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ACRONYM LIST

Acronym	Meaning
BMPs	Best Management Practices
NSR	Nevada Revised Statutes
NHP	Nevada Highway Patrol
DOT	Department of Transportation
HSP	Health and Safety Plan
POV	Personally-owned Vehicle
PPE	Personal Protective Equipment
NDEP	Nevada Department of Environmental Protection
RCRA	Resource Conservation and Recovery Act
SSO	Site Safety Officer
TP	Transportation Plan
U.S. EPA	U.S. Environmental Protection Agency

1.0 INTRODUCTION

This Transportation Plan (TP) has been prepared by Northgate Environmental Management, Inc. (Northgate) on behalf of Tronox LLC (Tronox) to address the transportation issues associated with the remediation of chemical-affected soil at the Tronox LLC Henderson Facility (the Site) located in Henderson, Nevada.

This report presents the transportation plan for the proposed remediation work, including building abatement and demolition, removal of structures including above and underground utilities and excavation, potential temporary stockpiling, loading and off-Site transport of materials and soil for disposal in accordance with the *Removal Action Work Plan for Soil, Remediation Zones RZ-B, RZ-C, RZ-D, and RZ-E, Tronox Facility, Henderson, Nevada*, dated March 29, 2010 (RAW; Northgate, 2010a). The RAW specifies removal of soil that exceeds the Basic Comparison Levels and Risk Based Cleanup Levels for the Site. Figure 1 identifies the location and configuration of the Site.

This TP addresses transportation measures for the proposed work at the Site, which includes:

- Demolition;
- Excavation;
- Debris segregation;
- Soil stockpiling and treatment;
- Off-Site hauling and disposal of excavated soil and demolition debris for disposal; and
- Off-Site hauling of recyclable materials.

Site features including proposed excavation areas, on-Site haul roads, and Site entrances and exits as shown on Figure 2.

1.1 Background

The Site is located roughly 13 miles southeast of the City of Las Vegas in an unincorporated area of Clark County, Nevada, and lies in Sections 1, 12 and 13 of Township 22 S, Range 62 E. The approximately 450-acre site is located within the Black Mountain Industrial (BMI) complex, a 2,330-acre site comprising multiple chemical plants and operations, one of which is the Tronox facility. The Site is crossed by asphalt concrete roads, unpaved roads, and railroad spurs. Two of the rail spurs are still in service. A drainage ditch (Beta Ditch) crosses the Site from west to east.

Manganese tailings have been stockpiled and capped with soil over approximately 8.6 acres in the eastern central portion of the Site. This material is a non-hazardous solid waste product generated in the production of electrolytic-grade manganese dioxide. The total volume of this stockpile is approximately 213,000 cubic yards (ENSR, 2007). Tronox plans to relocate this historic tailings stockpile to the Apex landfill, consistent with its ongoing transport and disposal of the manganese tailings generated by its current manufacturing operations. The historic tailings pile will be removed from the Site between approximately April and August, 2010. This activity is not included within the scope of the RAW (Northgate, 2010a) and its support plans including this TP.

Within the boundaries of the Site are the Sale Parcels A, B, C, D, E, F, G, H, and I. These parcels are at the edges of the Site at the north, west, and south sides. The Sale Parcels are not currently in use. The RAW does not include any removal actions on the Sale Parcels. Excavation of impacted soil on the Sale Parcels has been addressed in accordance with a work plan submitted to and approved by NDEP (Basic Environmental Company, 2008). Excavation and removal of soil from the Sale parcels began in March 2010 and will be completed in April 2010.

Approximately 213 acres will be accessed during construction activities addressed in this TP, including soil excavation over 170 acres. The remaining 237 acres in the southern portion of the Site will not be accessed during this project and are not subject to this TP.

The construction activities addressed in this TP will be conducted in accordance with the approved RAW and its support plans. The RAW specifies removal of soil from proposed excavation areas at the Remediation Zones RZ-B, RZ-C, RZ-D, and RZ-E. The layout of the Site including the Remediation Zones is presented as Figures 2. The following support plans will be implemented as part of the RAW:

- Dust Mitigation Plan and Clark County Dust Control Permit (Northgate 2010b);
- Perimeter Air Monitoring Plan (Northgate 2010c);
- Transportation Plan (Northgate 2010d); and
- Strom Water Pollution Prevention Plan (Northgate 2010e).

2.0 PURPOSE AND OBJECTIVES

This TP has been prepared to specify and outline safe practices for off-Site transportation of materials including chemically affected soil and on-Site handling of materials and equipment that will require transportation during work to be conducted pursuant to the RAW. The scope of this TP also includes potential transportation of import soil for backfill and materials for construction of Best Management Practices in association with stormwater pollution prevention measures.

In addition, this TP specifies that traffic control measures will be required and implemented by the Contractor during demolition and remediation activities to be conducted at the Site.

3.0 CHARACTERISTICS OF MATERIALS TO BE TRANSPORTED

Implementation of the RAW will require the removal and off-Site disposal of soil, construction and demolition debris, and other solid wastes generated during the project. Based on the Phase A and Phase B ECA investigations at the Site, most of the soil to be removed is suitable for disposal at a Class I landfill as non-hazardous waste. Some of the excavated soil may be classified as a hazardous waste based on the toxicity characteristic. None of the waste materials to be transported are anticipated to be reactive, corrosive, or ignitable.

3.1 Material Sorting

Initially, it is anticipated that the Site will be cleared of surface improvements (e.g., buildings, chemical plant manufacturing structures, debris, pavement, concrete slabs) and vegetation, except for those buildings and Site features that have been designated to remain (See Figure 2). Surface materials will be loaded into trucks and stockpiled at the Site for material segregation prior to transport to the designated disposal or recycling facility.

In accordance with the RAW, soil will be excavated, loaded, and transported for disposal at an approved off-Site landfill or temporarily stockpiled in a designated staging area for subsequent loading, transport, and disposal. Materials destined for off-Site disposal will be managed as (1) non-hazardous waste; (2) hazardous waste; or (3) recyclable materials.

Republic Services, Inc., the operator of the Apex Landfill located in Las Vegas (the intended destination for non-hazardous materials) does not require debris to be segregated from soils. If soil that is classified as a hazardous waste contains debris, some or all of the debris may be removed prior to off-Site disposal of this material. Debris may be segregated and stockpiled according to visual classification of debris type, and subsequently evaluated for off-Site recycling or disposal as hazardous or hazardous waste.

3.2 Material Classification

Material to be transported off-Site will be classified in accordance with Nevada laws and regulations and landfill facility requirements.

3.3 Quantity of Material to be Transported

Excavated soil is the primary waste to be hauled from the Site. Additional materials to be transported off-Site will include construction and demolition debris and other solid wastes. Based on available information, estimated quantities of the different waste streams, and the number of trucks required to

transport the materials from the Site, are shown in the table below. Truck capacity may vary from20 to 40 tons depending on the types of trucks selected by the Contractors. Material types and quantities to be off-hauled could vary significantly depending on field conditions and characterization results.

ESTIMATED QUANTITY OF MATERIAL AND TRANSPORTATION CAPACITY

Material Classification	Quantity (tons)	Number of Trucks per Day/Number of Days
Non-Hazardous Soil	440,000	150/220
Hazardous Waste	24,000	150/8
Construction and Demolition Debris (e.g., concrete) (presumably Non-RCRA Hazardous)	1,000	50/1
Recyclable Materials (e.g., scrap metal)	500	25/1
Aggregate Base (BMP)	10,000	150/4
Backfill	TBD	TBD

3.4 Transportation Regulations and Requirements

Materials will be transported from the work area in accordance with applicable State and Federal regulations, including 49 CFR Parts 100-199 and 350-399, 40 CFR Parts 260-268, and State of Nevada regulations. All material that is classified as hazardous waste will be properly manifested and transported in accordance with Nevada Highway Patrol (NHP) requirements (i.e., valid registration, proof of insurance, and inspection of vehicles).

4.0 DESTINATION OF MATERIAL

Material will not be transported out of the work area until it has been appropriately classified and a landfill and transporter have been designated. Northgate/Tronox will review analytical data, waste profile information, and waste classification details prior to off-hauling wastes from the Site.

Materials identified for off-Site disposition may be temporary stockpiled at designated on-site areas until they have been appropriately characterized and approved for disposition at the selected receiving facility.

The following is a list of operating disposal and recycling facilities that have been identified for possible use.

Nevada Class I & II landfill for non- hazardous waste:

Apex Regional Landfill Facility	Republic Services, Inc.
Facility Address:	13550 North US Highway 93 Las Vegas, NV 89165
Point of Contact:	Fred Hayes
Telephone:	(480) 353-1301

Nevada Class I landfill for hazardous waste:

U.S. Ecology Landfill and Resource Recovery Facility	American Ecology Cooperation
Facility Address:	Highway 95, 11 miles south of Beatty Mile-marker 47, Beatty, NV 89003
Point of Contact:	Debbie Baker
Telephone:	1 (800) 239-3943

Northgate/Tronox may identify other facilities that are not listed above. The Contractor shall identify recycling/processing facilities for the off-Site removal of recyclables. Materials will be transported directly to the above receiving facilities. Maps illustrating the routes from the work area to the above landfills, the estimated travel time, and the contact person, address, and phone number, are presented in Figures 3 and 4.

5.0 MODE OF TRANSPORTATION

5.1 Transport Company

The companies transporting excavated material will be licensed transportation companies designated by the General Contractor in charge of the demolition and excavation activities. For any loads classified as hazardous waste, the transporter will be required to provide proof of valid registration as a hazardous waste hauler. A copy of the Contractor's selected waste hauler's Nevada Hazardous Waste Transportation Registration will be provided by the Contractor to Northgate and will be attached as Appendix B to this document.

5.2 Transportation Vehicles/Containers

Materials removed will be transported in placarded trucks, Nevada Department of Transportation (DOT-) approved bins, and/or steel rail car containers. The type of vehicles used to transport material from the work area may include end-dump trucks, truck tractors that transport bins, and/or pin trailers pulled by a tractor (approximately 10 to 40 ton capacity per truck). Materials will be loaded in accordance with the procedures discussed in Section 7.0.

Vehicles will be inspected by Northgate before leaving the area to verify that they are properly registered and placarded in compliance with DOT guidelines, and in accordance with State of Nevada regulations, if appropriate. Northgate's inspector will complete the Departing Transporter Vehicle Checklist Form (Appendix B).

Some fill materials may be brought to the work area to build roads and backfill the excavations. Such material will be transported in DOT-approved trucks.

6.0 TRANSPORTATION ROUTE, SCHEDULING, AND EMERGENCY CONTACTS

6.1 Transportation Routes

Materials to be removed from the work area will be transported using the on-Site haul roads from the work areas to the Site exits, and public road ways between the Site exits and the disposal facilities. The following is a description of haul routes that have been identified for use during this project.

Maps of these routes are presented on Figure 3 and 4 showing the Site and facility location, the public roadways between the entrances/exits, driving directions and the facilities' addresses.

For travel to and from both the identified disposal facilities:

The Contractor will access U.S. Route 515 (Route 101) to and from the Site via 4th Street southbound to Westbound on Fiesta and west on to Lake Mead Parkway/NV-564 W toward W. Van Wagener St (0.6 miles) and take east exit onto
I-515 N/US-93 N/US-95 N toward Las Vegas (14.4 miles).

Transportation traffic to and from Apex:

Take exit to 76B to merge onto I-15 N/US-93 N toward Salt Lake City (21.3 miles) and take exit 64 for US-93 N/Great Basin Hwy and turn east (right) onto landfill entrance road.

Transportation Traffic to and from the U.S. Ecology Hazardous Waste Landfill:

Take east exit onto I-515 N/US-93 N/US-95 N toward Las Vegas (14.4 miles), continue onto US-95 N (approx. 105 miles); the landfill is at mile-marker 47, 11 miles south (before) Beatty, NV.

Route 93, 95 and 515 are primary trucking corridors in Las Vegas and are heavily used by trucks. Therefore Site truck-traffic impacts on the local freeways that will be used are not expected to be significant. Inbound and outbound trucks will travel to Route 515 only via the West Lake Mead Drive.

Drivers may call the DOT at 511 to check road conditions before leaving the Site. There are no alternative routes available for transportation of waste between the Site and the disposal facilities identified in section 6.0. If the selected routes become unavailable, transportation will cease until the routes become available again.

6.2 Scheduling of Transport

Transportation activities may be conducted over a period of approximately 40 weeks. At this time, it is estimated that the number of trucks leaving the work area during periods of removal will range up to approximately 150 to 300 trucks per day, and that the number of vehicles parked in the work area will range up to 50 per day.

6.3 Emergency Contact

The transportation contingency plan (Section 11.0 of this Transportation Plan) includes phone numbers for emergency contacts within the transporter company (dispatch), who will be able to advise the driver concerning emergency response procedures, the nearest repair facility, the nearest weigh station, and/or any other information required in an emergency.

In the event of an emergency on roadways outside of the Site work area, the transporter will contact the NHP, in addition to other contacts included in the TP. NHP facility addresses along transportation routes in Nevada are included as Table A-1 in Appendix A.

The NHP may contact DOT to mobilize road crews and/or emergency response contractors, if needed, to clean up and contain spilled materials. The Contractor will provide a list of key contacts and emergency telephone numbers and they will be included as Table A-2 of Appendix A.

7.0 ON-SITE TRAFFIC CONTROL AND LOADING PROCEDURES

7.1 Location of Work Areas

Materials will be handled and loaded within designated areas identified in the RAW. Excavated soil, debris, and recyclable materials may be temporary stored in designated stockpile areas. Transport trucks will not be staged on residential streets. The Contractor will identify designated sections of the on-Site haul route where truck staging will occur. Figure 2 shows the location of traffic routes, excavation areas, support zones, staging areas, and the Site entrances/exits.

7.2 Safe Loading Procedures

While loading materials into trucks, the area around the trucks will be kept clear. If needed, the material will be wetted with water before and during loading to reduce the potential of dust/ particulate emissions. Foam or other odor suppressants may be applied if materials generate nuisance odors. Personnel observing the loading will wear personal protective equipment (PPE) as specified in the HSP, and as directed by the designated Site Safety Officer (SSO).

Materials will only be loaded into trucks with tarpaulin covers or containers with sliding steel covers. If material is spilled during loading, it will be immediately contained and subsequently loaded and hauled from the work area in accordance with the procedures outlined herein.

7.3 Decontamination Procedures

Vehicles and equipment will be decontaminated before leaving the Site. The Contractor will prepare a Decontamination Plan that describes decontamination procedures for vehicles and equipment leaving the site and implement these procedures during implementation of the RAW.

At a minimum the Contractors Decontamination Plan will include the following requirements:

Equipment will be decontaminated, as necessary, before leaving the work area. If hazardous materials are not present, decontamination of equipment will consist of removing residual dust or soil adhering to tires, flaps, and undersides of the equipment using shovels or other handheld equipment.

Where hazardous materials are present, a potential exists for such materials to contact truck tires or the undersides of trucks. For this purpose, decontamination stations and inspection areas will be built and will be shown in the construction plans. The decontamination areas will consist of a rectangular, sloped area enclosed by four asphalt berms or wood walls about 1-foot high, with a lined trough to

contain decontamination rinsate. A central berm or wall will be constructed across the middle of the enclosed area and perpendicular to the longitudinal berms/walls. The wall will support two steel grates as tracks for the trucks. The berms/walls and the enclosed area and trough will be covered with either asphalt or plastic sheeting.

Earthen ramps covered with gravel will slope up to the decontamination area on opposite ends. Trucks will drive up one ramp and onto the steel grates while their tires, flaps, and lower parts are washed free of residual dust and soil picked up during loading. Water for decontamination will be obtained from a local fire hydrant or other temporary water connection, pending City approval. Rinsate will flow down the asphalt or plastic-lined slope into the trough at the lower corner of the area. Rinsate in this trough will be pumped out as needed to a portable storage tank located nearby. Rinsate will be sampled before reaching capacity and analyzed for profiling purposes. After the sampling results have been received and evaluated, the rinsate will be transported to an appropriate facility in a DOT-approved vacuum truck, as appropriate. Chemical analysis of samples will depend on the requirements of the potential receiving facility.

7.4 Inspection Procedures

The Contractor will identify on-Site areas where trucks will be inspected for proper loading, covering/sealing, decontamination, and manifesting. During removal activities, the inspection areas will be in the same location as the decontamination areas. The Contractor-designated inspector will use an information form for departing transportation vehicles to guide and document the inspections. The departing vehicle transportation information form will be generated by the Contractor and provided in Appendix B.

8.0 SITE-SPECIFIC TRAFFIC MANAGEMENT AND CONTROL

This section of the TP identifies traffic control measures, appropriate signage, and traffic control devices which will be implemented by the Contractor prior to and during the work to be conducted at the Site. The purpose of the traffic management and control measures is to regulate, warn, and direct on-Site and off-Site vehicular traffic. These measures shall be in accordance with the current *Commercial Driver's License Hazardous Material Handbook* published by the Nevada Department of Motor Vehicles (Nevada DMV; Nevada DMV, 2008), the *Nevada Driver's Handbook* published by the DMV (Nevada DMV, 2010), and the DOT *Work Zone Safety and Mobility Implementation Guide* (DOT, 2009).

8.1 Traffic Flow Patterns and Designated Areas for Vehicles

All Contractors' vehicles, including but not limited to personal vehicles of workers, construction vehicles, maintenance vehicles, and hauling and transport vehicles will enter and exit the Site from 4th Street.

Personal vehicles of workers and authorized Site visitors will park in the Contractor's designated personally owned vehicle (POV) area providing for approximately 20 POVs. Workers and visitors will access the Site at the 4th Street north and south access gates, and register at the field office before entering the work area.

Authorized Site visitors will park in the designated personally owned vehicle (POV) area providing for approximately 20 POVs at the Tronox Site entrance at Wagner Avenue.

The Contractor will identify on-Site staging areas for all hauling trucks. No hauling trucks will be allowed to stage or park on 4th Street or any public street adjacent to the Site. The Contractor will determine the number of staging areas and maximum number of hauling trucks which can be staged at the designated staging areas. The Contractor will manage inbound and outbound truck flow so no construction vehicles will be parked or staged on public streets and will only park in the designated staging areas.

Hauling and transport vehicles waiting to be loaded will be staged or stacked in the designated truck staging areas. Trucks waiting in the staging area will be permitted to idle for no more than 2 minutes, after which time they will turn off their engines.

The Contractor will identify and construct one or more wet decontamination pads area near the Site exit. After hauling and transport vehicles have been loaded, vehicles will be directed through the wet decontamination pad. Hauling and transport vehicles will be directed through the decontamination

station to remove debris from truck tires, chassis, and from the sides of the tractors and end-dumps or transport bins. The Contractor will describe and implement decontamination procedures for vehicles and equipment leaving the site and include the procedures in the Decontamination Plan.

The Contractor will utilize a motorized street sweeper and or water truck to sweep and maintain all paved-site access roads, parking areas, staging areas, and public streets adjacent to the Site. Excavation equipment including, but not limited to, steel-tracked excavators and bulldozers, rubber-tire front end loaders, and compactors will remain on site for the duration of the work.

Prior to demobilization from the Site, all excavation and earth moving equipment will be decontaminated.

8.2 Signage and Traffic Control Devices

Prior to commencement of field activities at the Site, the Contractor will install temporary signs and traffic control devices which may include, but are not limited to, road striping, flashing beacons, and traffic barricades (K-rails).

Temporary traffic signs will be installed for the duration of the Project. Traffic signs to be installed include, but are not limited to:

- Arrow Signs to Site Access/All Other Traffic;
- Staging Area/Parking Only for Construction Vehicles;
- Site Visitor/POV Parking Only;
- Detour Ahead;
- Multi-Directional Arrow Signs;
- Stop Signs;
- No Stopping Any Time; and
- 15 mph Speed Limit (on-Site).

"No Stopping Any Time" signs will be installed at a maximum interval of 100 feet apart.

Upon completion of field activities, all temporary signage and traffic control devices will be removed, and traffic control measures will be restored to conditions prior to commencement of the work.

9.0 RECORD KEEPING

9.1 Transportation Records

Records will be maintained for each load of material that leaves the Site. A Contractor's designated representative will be posted at the inspection area during transportation activities to complete the information form, provided in Appendix C, which includes:

- manifest or bill of lading number;
- date and time each truck departs the area;
- vehicle type, license number and vehicle registration number;
- transport company and driver's name;
- approximate volume or weight (if measured) of material being removed; and
- material destination.

All records will be maintained at the Site for the duration of the project and thereafter archived by the Contractor for a minimum of 5 years.

9.2 Required Transporter Records

Documentation carried by the driver will include:

- Bills of lading or non-hazardous or hazardous waste manifests;
- Proof of insurance, valid registration, and current driver's license;
- Material profile information (reflecting chemical analysis results);
- Material weight records; and
- Copy of this TP including travel routes, emergency procedures, and contacts.

A copy of a hazardous waste manifest and a copy of a nonhazardous waste manifest are included in Appendix C. A copy of an example bill of lading, proof of insurance, valid registration for the transporter trucks, and a NHP inspection certificate for the transporter trucks will be required, prior to off-hauling wastes from the Site.

10.0 HEALTH AND SAFETY

10.1 Training Requirements for Workers

The remediation staff will be trained in hazardous materials operations in accordance with 49 Code of Federal Regulations (CFR) Parts 100-199 and 350-399 (42 U.S. Code 6901 et seq.); 40 CFR Parts 260-268; and State of Nevada DOT regulations. Once the material is characterized, if hazardous materials are to be transported, then the transportation subcontractors trained in accordance with the latter regulations will be selected. Health and safety procedures to be followed during the work are outlined in the Contractor's HSP.

10.2 Communication of Health and Safety Procedures to Drivers

Drivers will not be directly involved in loading activities. The transporter will be given a copy of the HSP and the Transportation Plan. The transport company is responsible for the health and safety of its workers and for instructing those workers on health and safety procedures as they apply to transport of both non-hazardous and hazardous material. If the material to be transported from the work area is classified as hazardous waste, the transporter will be required to show proof of valid registration for transport of hazardous waste. Before leaving the work area, each driver will be briefed on the nature of the material to be transported. Drivers carrying material classified as hazardous will be trained in health and safety and will be required to carry the appropriate PPE.

Before leaving the work area, the inspector may question the driver on specific elements of the Transportation Plan including the Contingency Plan (see Section 12.0). At a minimum, the driver should carry emergency phone numbers and be aware of the notification processes set forth in this Plan.

11.0 CONTINGENCY PLAN

11.1 Purpose of Contingency Plan

The purpose of the contingency plan is to facilitate a quick and effective response in the unlikely event of a transportation emergency. This TP describes response procedures to be implemented if an emergency occurs while materials are being transported.

11.1.1 Emergency Response Procedures

In the event of an emergency after the transporter exits the Site, the transporter will first contact the NHP. Afterwards, the driver will notify the appropriate emergency contact for its company. A list of critical contacts and emergency telephone numbers is included in Appendix A.

The NHP will respond to the call and contact DOT. DOT will then contact road crews and/or emergency response contractors who are trained to respond to such emergencies with the appropriate methods of containing and cleaning up of spills. As stated in Section 3.1 of this TP, materials may be classified as one of the following: (1) non-hazardous; (2) hazardous; or (3) recyclable materials.

The emergency contact within the transporter company will advise the driver concerning other emergency response procedures that may be necessary, and the location of the nearest repair facility, as appropriate.

After the NHP and the emergency contact within the transporter company have been notified of an emergency, the driver will notify Contractor's Project Manager, who will be responsible for informing Northgate/Tronox.

After the NHP and the emergency contact within the transporter company have been notified of an emergency, the driver will notify the Project Coordinator and the NDEP's Project Manager.

NDEP's Project Manager, Ms. Shannon Harbour, will be notified of any transportation emergency, immediately after emergency authorities have been notified. A list of critical contacts and emergency phone numbers is contained in Appendix A to this transportation plan.

Personal Protective and Emergency Equipment

The following PPE and emergency equipment will be kept on each transporter truck for use in case of an emergency:

- Gloves;
- Tyvek™ coveralls;
- Hard hat;
- Steel-toed boots or shoes; and
- Fire extinguisher.

11.1.2 Required Transporter Records

The following documents will be kept on each waste hauling truck:

- Bills of lading or non-hazardous or hazardous waste manifests;
- Proof of insurance, valid registration, and current driver's license;
- Material profile information (reflecting chemical analysis results);
- Material weight records;
- Copy of this TP, including travel routes, emergency procedures, and contacts; and
- Copy of the Contractor's HSP.

The Contractor will provide copies of hazardous and non-hazardous waste manifests in Appendix C. A copy of an example bill of lading, proof of insurance, valid registration for the transporter trucks and a NHP inspection certificate for the transporter trucks will be required.

12.0 REFERENCES

Basic Environmental Company 2008. *Removal Action Workplan for Soil, Tronox Parcels "C", "D", "F", "G", and "H" Sites*, Henderson, Nevada, July 1, 2008.

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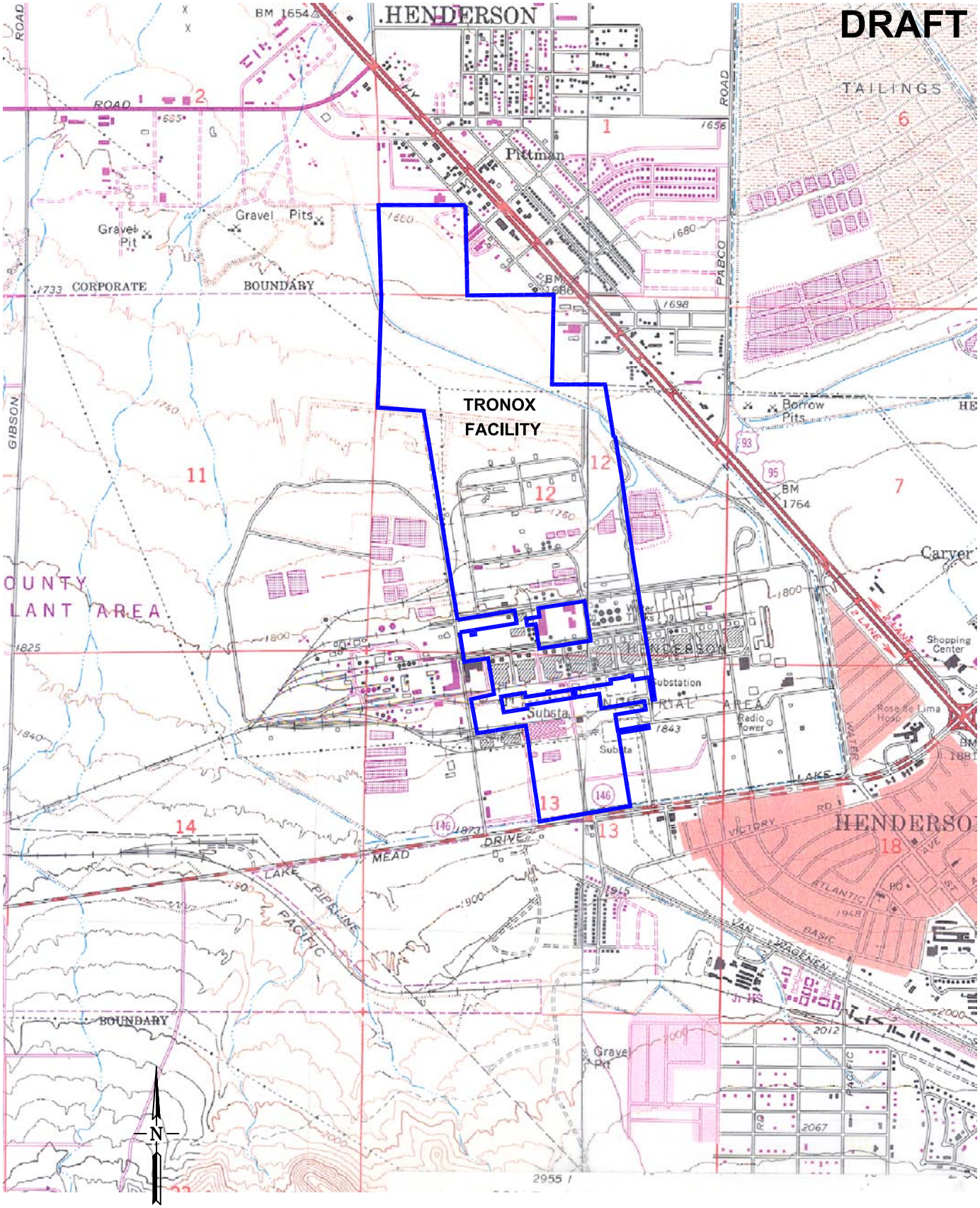
FIGURES



0 2,000 4,000

Scale (Feet)

M:\01 Projects\2027 Tronox\Phase B\Remediation\RAW\Transportation Plan\Figure 1- Site Location Map.dwg Layout: 8.5x11-P User: oleg Mar 29, 2010 - 10:58am

FIGURE NUMBER:	SHEET NUMBER:
1	1

SITE LOCATION MAP

Transportation Plan
Tronox LLC
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
NA	03/29/10	2027

DESIGNED BY:	REVISIONS			
NGEM	NO.:	DESCRIPTION:	DATE:	BY:
DRAWN BY:				
NGEM				
CHECKED BY:				
NGEM				
APPROVED BY:				
NGEM				

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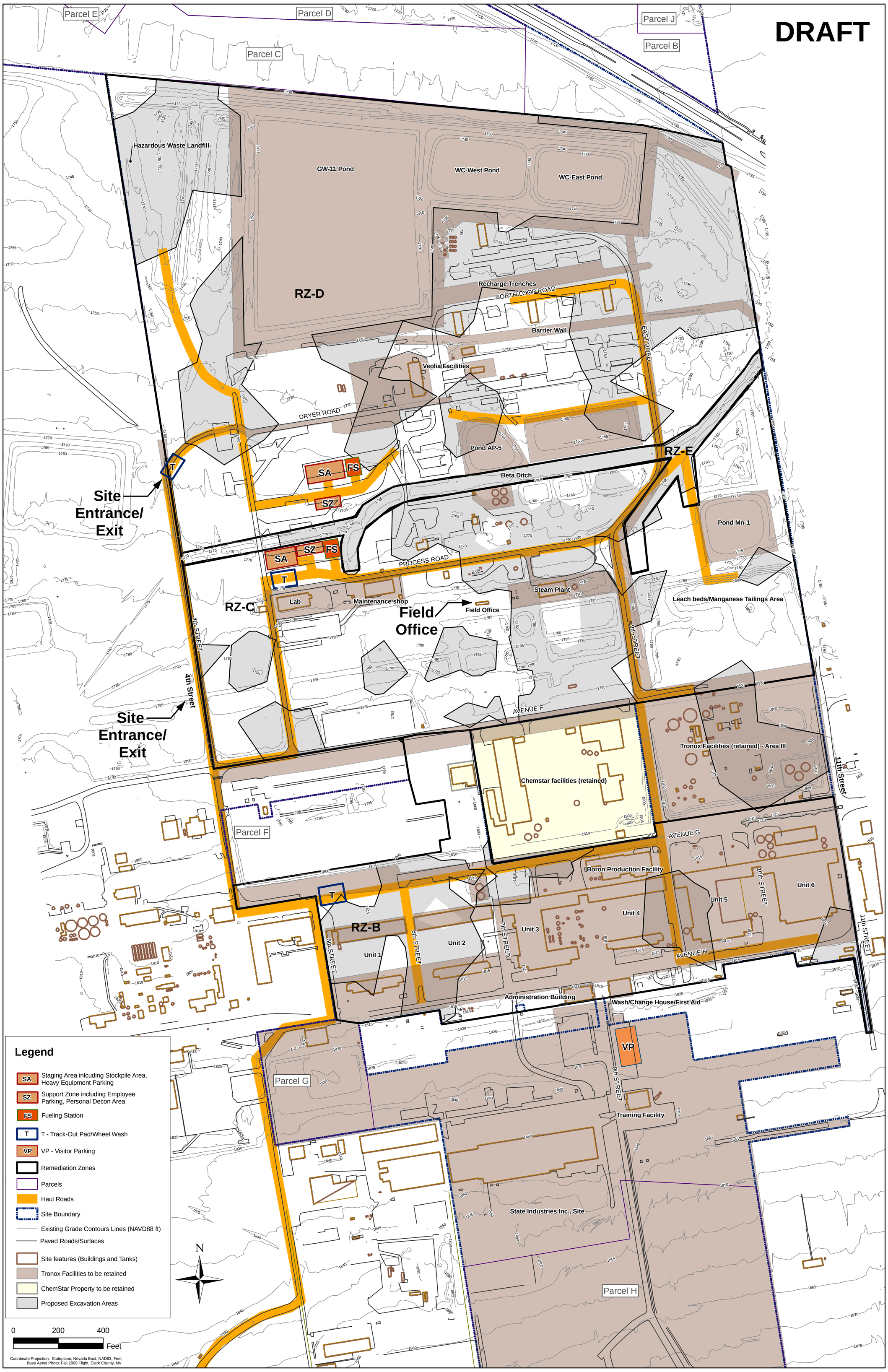
\\NG-OAK1\NG-GIS\01_Projects\2027_Tronox\Phase_B\Remediation\RAW\Transportation_Plan\Figure_2_Site_Plan.mxd Last updated 3/25/2010 11:36:50 AM



SHEET NUMBER: 1

FIGURE NUMBER: 2

SITE PLAN
Transportation Plan
Tronox LLC
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
1 in = 200 ft	03/29/10	2027.01

DESIGNED BY:	REVISIONS			
	NO.:	DESCRIPTION:	DATE:	BY:
DRAWN BY:				
NGEM				
CHECKED BY:				
NGEM				
APPROVED BY:				
NGEM				

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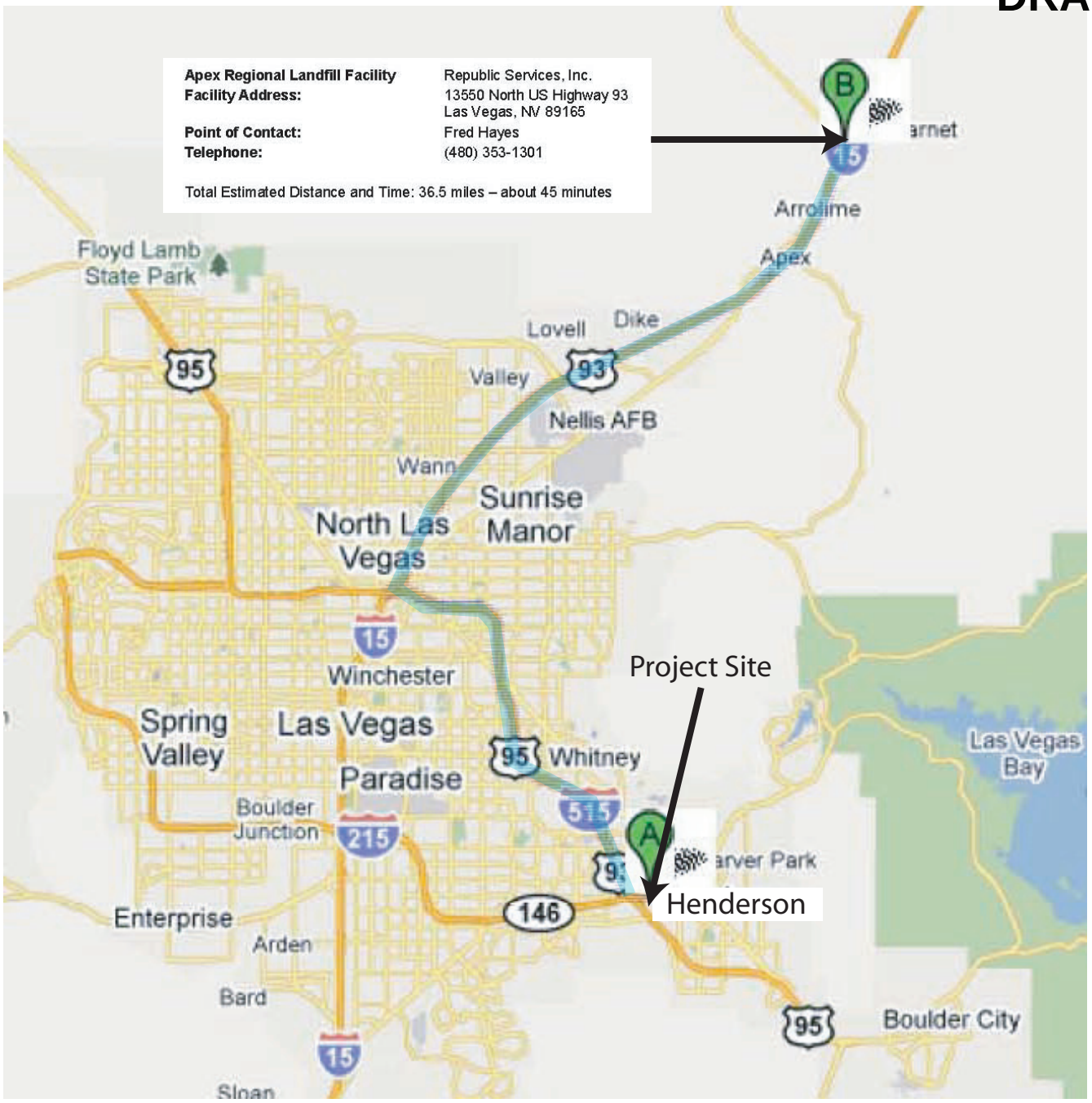

Directions	Distance
1. Turn left and head east on Avenue G toward 5th St	0.1 mi
2. Avenue G turns right and becomes 5th St	0.1 mi
3. 5th St turns right and becomes S 4th St	0.4 mi
4. Turn right on Fiesta Henderson toward Eastgate Rd	0.2 mi
5. Turn right at W Lake Mead Dr/NV-564 W	0.3 mi
6. Take the exit onto I-515 N/US-93 N/US-95 N toward Las Vegas	14.4 mi
7. Take exit 76B to merge onto I-15 N/US-93 N toward Salt Lake City	21.3 mi
8. Take exit 64 for US-93 N/Great Basin Hwy toward Pioche Ely	0.2 mi
9. Turn left at Great Basin Hwy/US-93 N Continue to follow US-93 N	0.2 mi

G:\Projects\Temp\2027 Tronox\Remediation\Plan Documents\Transportation Plan\2027 Tp Figures\Figure 3 - Route to Apex.ai

SHEET NUMBER: 1

FIGURE NUMBER: 3

ROUTE TO APEX LANDFILL

Transportation Plan
Tronox LLC
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
NA	03/29/10	2027

DESIGNED BY: NGEM
DRAWN BY: NGEM
CHECKED BY: NGEM
APPROVED BY: NGEM

REVISIONS

NO.:	DESCRIPTION:	DATE:	BY:

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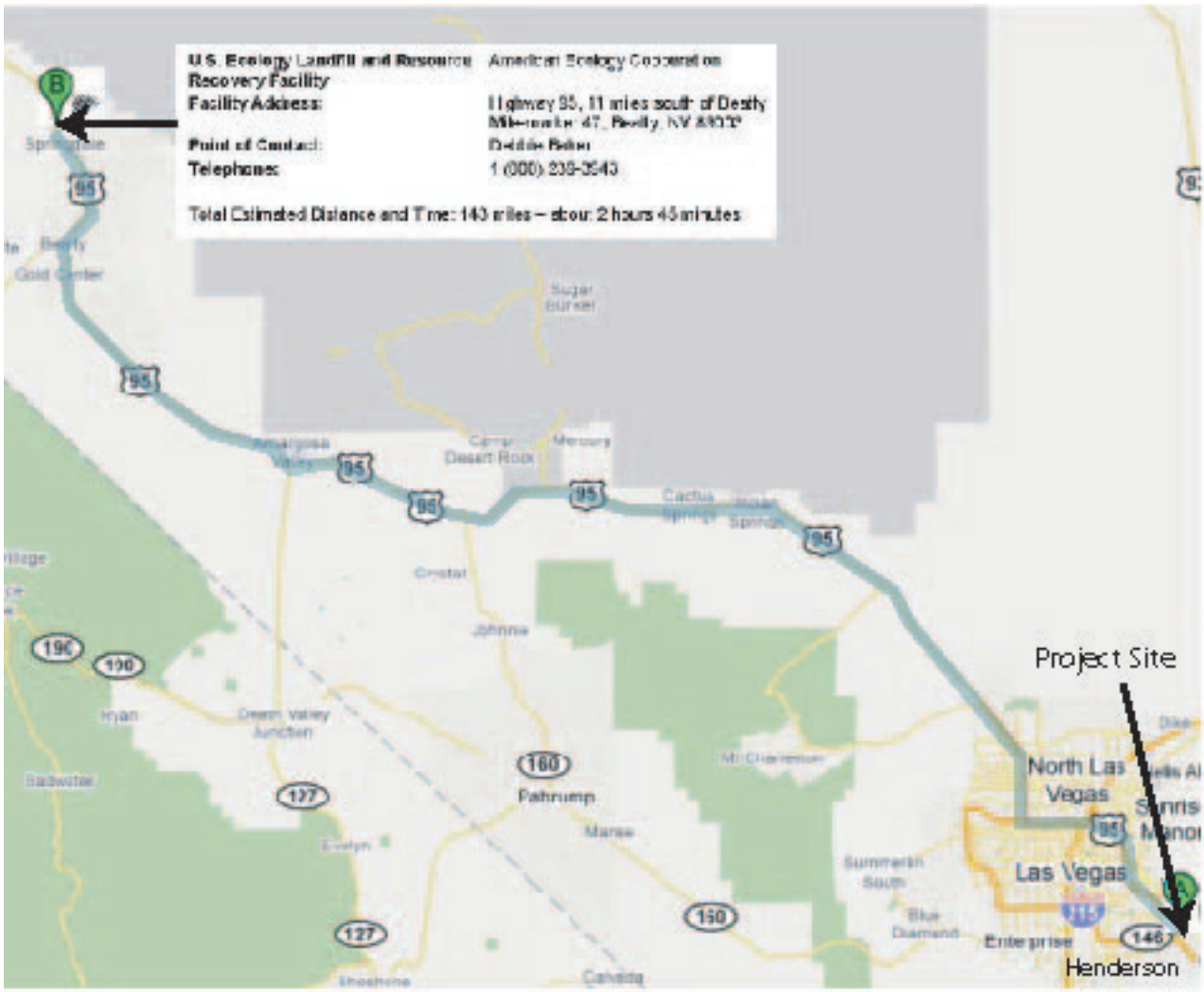
DRAFT



Directions	Distance
1. Turn left and head east on Avenue G toward 5th St	0.1 mi
2. Avenue G turns right and becomes 5th St	0.1 mi
3. 6th St turns right and becomes E 4th St	0.4 mi
4. Turn right on Fiesta Henderson toward Eastgate Rd	0.2 mi
5. Turn right at W Lake Mead Dr/NV-581 W	0.3 mi
6. Take the exit onto I-515 N/US-93 N/US-95 N toward Las Vegas	14.4 mi
7. Continue onto US-95 N	1.8 mi
8. Turn right at Main St/US-95 N Continue to follow US-95 N	12.2 mi

G:\Projects\Temp\2027 Tronox\Remediation\Plan Documents\Transportation Plan\2027 Tr-Figures\Figure 3 - Route to US Ecology.ai

SHEET NUMBER:	FIGURE NUMBER:
1	4

ROUTE TO US ECOLOGY
Transportation Plan
Tronox LLC
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
NA	03/29/10	2027

DESIGNED BY:	REVISIONS			
NGEM	NO.:	DESCRIPTION:	DATE:	BY:
DRAWN BY:				
NGEM				
CHECKED BY:				
NGEM				
APPROVED BY:				
NGEM				

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APPENDIX A
EMERGENCY CONTACTS

TABLE A-1

NEVADA HIGHWAY PATROL (NHP)
LOCATIONS AND CONTACTS NUMBERS

Southern Command

NHP Station	***Location***	***Telephone***
Pioche Substation	1 Main Street Pioche, NV 89043	775-962-5384
Beatty Substation	211 Montgomery Street Beatty, NV 89003	775-553-9358
Southern Command Center	4615 West Sunset Road Las Vegas, NV 89118	702-486-4100

TABLE A-2

EMERGENCY CONTACT TELEPHONE NUMBERS

Henderson Fire Department Emergency	911
Henderson Fire Department Non-Emergency	775-267-2222
Henderson Police Department Emergency	911
Henderson Police Department Non-Emergency	775-267-5000
Tronox	
Susan Crowley	702-592-7727
Northgate Environmental Management	
Derrick Willis	949-375-7004
Ted Splitter	510-381-0486
Jim Carolan	510-504-6297
Contractor	
TBD	
Nevada Department of Environmental Protection (NDEP)	
Shannon Harbour	702-486-2850 ext. 240
Nevada Department of Transportation (NDOT)	
Mary Martini	702-385-6500

APPENDIX B
DEPARTING VEHICLE TRANSPORTATION INFORMATION

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DEPARTING TRANSPORTATION VEHICLE INFORMATION FORM

Must be completed for each departure of vehicles taking material from the work area.

Project Number: _____ **Date:** _____

Location: _____ **Inspector:** _____

Load Material Information

Manifest of Bill of Lading Number: _____

Destination: _____

Volume or Weight (if measured): _____

Contractor Transportation Inc. Information

Transporter Registration Number: _____

Nevada Highway Patrol Carrier Number: _____

Driver Name: _____

Vehicle Type: _____

License Plate Number: _____

Vehicle Registration Number: _____

Time Loading Started: _____ Time Loading Ended: _____

Checklist

Driver Has:

- ❑ Transportation Plan
- ❑ Manifest or Bill of Lading
- ❑ Proof of Insurance
- ❑ Material Profile Information

And:

- ❑ Driver is Familiar with H&S Procedures
- ❑ Load is Secured
- ❑ Tires / Underbody are Clean

General Comments:

Time of Departure: _____ **Date:** _____

Inspectors Signature: _____

300Frank H. Ogawa Plaza, Suite 510, Oakland, California 94612 510.839.0688 fax 510.839.4350
www.ngem.com

Nevada Hazardous Waste Transportation Registration

APPENDIX C
TRANSPORTATION MANIFESTS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	**4. Manifest Tracking Number**

GENERATOR

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1.					
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

VOID

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE

GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

5. Transporter 1 Company Name

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a.				
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name | Signature | Date: *Month* *Day* *Year*

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: *Month* *Day* *Year*

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: *Month* *Day* *Year*

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name | Signature | Date: *Month* *Day* *Year*

SAMPLE