Final

ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN
ARMED FORCES RESERVE CENTER (AFRC)
BROWNSVILLE, TEXAS
BRAC 2005

Prepared for:

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August 2009

DRAFT
FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN ARMED FORCES RESERVE CENTER (AFRC)
BROWNSVILLE, TEXAS
BRAC 2005

The Defense Base Closure and Realignment (BRAC) Commission of 2005, in response to the Defense Base Closure and Realignment Act of 1990, as amended, recommended closing the Brownsville U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocation to a new Armed Forces Reserve Center (AFRC) in Brownsville, if the Army is able to acquire suitable land for the construction of the facilities.

Pursuant to the Council on Environmental Quality regulations (40 Code of Federal Regulations Parts 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA), 42 U.S. Code Section 4321 et seq., as amended; 32 Code of Federal Regulations (CFR) Part 651 (Environmental Analysis of Army Actions), the U.S. Army Corps of Engineers, Mobile District, has prepared an Environmental Assessment (EA) and Finding of No Significant Impact (FNSI), which addresses the proposed construction and operation of the AFRC in Brownsville, Texas.

Proposed Action

The Proposed Action is to establish a new 200-member AFRC at a site in Brownsville to accommodate the units to be relocated from the Brownsville USARC. A new 45,395-square foot (SF) building; 4,763 SF vehicle and equipment maintenance facility; a 2,860 SF Organization Storage Unit; and 13,018 SF parking lot would be constructed. The new facility would provide administrative, assembly, educational, storage, weapons simulators, vehicle maintenance, and physical fitness training facilities to accommodate one U.S. Army Reserve (USAR) and one Texas Army National Guard (ARNG) unit from Brownsville, Texas, should the state decide to relocate this unit. The new AFRC is proposed to be constructed on a 11-acre parcel bounded by Los Ebanos Boulevard and State Highway 83, in north central Brownsville.

Alternatives Considered

General screening criteria includes consideration of location of the workforce and efficient, streamlined management of functions. The site must also be a minimum size of 8 acres and have minimum side lengths of 500 feet. The latter is required to ensure sufficient size to comply with anti-terrorism/force protection (AT/FP) requirements for 200-foot wide setbacks.

Two other alternative sites (Alternative Site 10 and 16) were identified as potentially viable through an independent Available Site Identification and Validation (ASIV) study. These sites are located approximately 5 miles to the northwest and 4 miles to the west of the preferred site, respectively. Similar conditions exist at these other sites and they will be carried forward for detailed evaluation. However, if for some reason the preferred site can not be obtained, additional surveys and supplemental NEPA documentation would be required to fully evaluate the use of these alternative sites. In addition to the two viable alternative sites, ten other sites (non-viable) were identified in the ASIV study but were eliminated due to engineering and safety issues.

No other action alternatives were considered during the preparation of this EA. Other schedules were considered, but eliminated from detailed analyses. The No Action Alternative has also been carried forward throughout the EA to serve as a baseline for comparison to the other alternatives.

Factors Considered In Determining That No Environmental Impact Statement is Required

Implementation of the Proposed Action at the preferred location would result in minor, permanent effects on vegetation, wildlife, soils, aesthetics, and land use. The Proposed Action would cause the permanent conversion of up to 11 acres of early disturbed grassland to hard surfaces and buildings and remove this land from further biological productivity and other uses. Because the preferred location has been disturbed in the past, and thus provides limited wildlife habitat, the loss of 11 acres would be considered insignificant. No impacts would occur on Federal or state protected species, cultural resources, water quality or water supply.

Temporary increases of vehicle traffic would be expected during the construction period, particularly along State Highway 83, as construction crews commute to the project site. Permanent increases in traffic would occur along these roads during the operation of the AFRC; however, most of these increases would occur during training activities, which would be scheduled primarily on weekends. Therefore, the operation of the AFRC would result in minor to moderate long-term increases in traffic.

In addition, temporary and insignificant adverse effects on air quality, noise, soil erosion/sedimentation, and utilities would occur during the construction period. No violations of the region's air or water quality standards would be expected. Emissions expected to be generated during construction are well below the *de minimis* thresholds, although Cameron County is considered in attainment for all priority pollutants. Best management practices would be implemented to ensure stormwater during and after construction is controlled and downstream sedimentation is either eliminated or is negligible.

Slight benefits for local and regional employment and personal income would be expected during the construction period. No long-term significant adverse impacts on the region's economy would be expected to occur.

No significant impacts due to the presence of hazardous or toxic substances would occur upon implementation of the Proposed Action. Residual soil and groundwater contamination remaining from the former underground storage tanks at the former Coca Cola Bottling Plant and the proposed new AFRC building location were analyzed through a limited Phase II subsurface investigation and found to be below corrective action levels established by the Texas Commission on Environmental Quality.

The cumulative effects of the Proposed Action and other planned or reasonably foreseeable projects in the project region would also be considered insignificant. The City of Brownsville currently has no plans for development or improvements at the preferred site or surrounding area. Local expenditures required by the proposed AFRC and other construction projects would result in moderate beneficial impacts in the project region within the next 3 years. The City of Brownsville would easily accommodate the additional employment, sales volumes, income and taxes generated by these activities.

Conclusions

Based on information gathered and presented in the EA, it has been determined that the Proposed Action would have no significant direct, indirect or cumulative adverse impacts on the quality of the natural and human environment. Consequently, an Environmental Impact Statement is not required and will not be prepared.

Public Comment

Interested parties are invited to review and comment on the EA and draft FNSI within 30 days of publication of the Notice of Availability, which is scheduled to occur on August 20, 2009. Comments should be addressed to Mr. James Wheeler II, Chief, Environmental Division, 90th Regional Readiness Command, 8000 Camp Robinson Road, North Little Rock, AR 72118-2205. Requests for copies should be directed to Mr. Josh McEnany, GSRC, 8081 GSRI Avenue, Baton Rouge, LA 70820 or by phone at 225-757-8088. A limited number of copies of the EA are available to fill single copy requests. The EA is available for review at the Brownsville Public Library, 2600 Central Avenue, Brownsville, Texas 78520 (956-548-1055).

_____ _____

Bruce A. Casella, Major General Date
U.S. Army Reserve, Commanding

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FINAL

ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN
ARMED FORCES RESERVE CENTER (AFRC)
BROWNSVILLE, TEXAS
BRAC 2005

Prepared by:

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT

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BRUCE A. CASELLA
Major General, USAR
Commanding

LEAD AGENCY: Mobile District, United States (U.S.) Army Corps of Engineers

TITLE OF PROPOSED ACTION: Establishment of an Armed Forces Reserve Center (AFRC), Brownsville, Texas, BRAC 2005

AFFECTED JURISDICTION: Cameron County, Texas

PREPARED BY: Byron G. Jorns, Colonel, Corps of Engineers, Mobile District, Commanding

TECHNICAL ASSISTANCE FROM: Gulf South Research Corporation

APPROVED BY: Bruce A. Casella, Major General, U.S. Army Reserve, Commanding

ABSTRACT: This Environmental Assessment (EA) addresses the potential effects of the proposed establishment of a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas, as directed by the Defense Base Closure and Realignment Commission's recommendation. The existing U.S. Army Reserve Center (USARC) in Brownsville, Texas would be closed and the units would be relocated to the new AFRC. The Proposed Action would accommodate up to 200 military and civilian personnel at the new AFRC during training activities. The new 200-member AFRC would include administrative, assembly, educational, storage, weapons simulator, and physical fitness training facilities to accommodate one U.S. Army Reserve unit and one Texas Army National Guard unit, if the state chooses to use the AFRC. The main AFRC building would be of permanent construction and approximately 45,395 square feet in size excluding storage areas, associated parking areas, sidewalks and landscaping. The action would also include construction of an Operational Maintenance Shop and storage facilities. All other associated infrastructure (e.g., plumbing, electrical systems; heating, ventilation, and air conditioning systems; and anti-terrorism/force protection systems) would also be provided. The construction would permanently convert approximately 11 acres of disturbed grasslands to hard surfaces. No long-term or significant impacts on protected species, cultural resources, water quality, or socioeconomic resources would occur as a result of the Proposed Action. Temporary and insignificant impacts on air quality and noise would occur during construction activities. Traffic patterns at the new site would be slightly altered by the proposed construction and operation of the AFRC. No significant impacts due to the presence of hazardous or toxic substances would occur upon implementation of the Proposed Action. A limited Phase II subsurface investigation of the Preferred Site found residual soil and groundwater contamination to be below corrective action levels established by the Texas Commission on Environmental Quality. Two other alternate sites were identified and evaluated during the preparation of the EA.

REVIEW PERIOD: The EA and draft Finding of No Significant Impact are available for review for a period of 30 days. Copies of this document can be obtained from Mr. Josh McEnany, GSRC, 8081 GSRI Avenue, Baton Rouge, LA 70820 or by phone at 225-757-8088. Copies are also available for review at the Brownsville Public Library, 2600 Central Avenue, Brownsville, Texas 78520 (956-548-1055).

Written comments must be submitted to Mr. James Wheeler II, Chief, Environmental Division, 90th Regional Readiness Command, 8000 Camp Robinson Road, North Little Rock, AR 72118-2205 no later than 21 September 2009.

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EXECUTIVE SUMMARY
ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN
ARMED FORCES RESERVE CENTER (AFRC)
BROWNSVILLE, TEXAS
BRAC 2005

Introduction: In accordance with the National Environmental Policy Act of 1969 (NEPA), the United States (U.S.) Army Corps of Engineers (USACE), Mobile District has prepared this Environmental Assessment (EA) for the establishment of an Armed Forces Reserve Center (AFRC) in Brownsville, Cameron County, Texas. The new AFRC would accommodate troops to be relocated from the existing U.S. Army Reserve Center (USARC) in Brownsville, Texas, which is scheduled to be closed. This EA discusses the potential environmental effects of the proposed construction and operation of the AFRC on the human and natural environment at and surrounding the Preferred Site in Brownsville.

Background/Setting: The existing Brownsville USARC is old and is currently over-utilized at 125 percent and does not meet anti-terrorism/force protection (AT/FP) requirements. The Preferred Site for the establishment of a new AFRC is located approximately 2 miles north of the existing Brownsville USARC. The site is currently heavily disturbed and consists of a disturbed grassland vegetation community with scattered shrubs and trees. The surrounding land uses include residential properties to the south and west while the site is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east. The area is zoned for commercial use.

Proposed Action: The establishment of a new AFRC in Brownsville, Texas is required by the Defense Base Closure and Realignment Act of 1990 (BRAC), as amended, and the recommendations made by the Defense Base Closure and Realignment Commission of 2005 (BRAC Commission). The BRAC Commission recommended the closure of the existing Brownsville USARC. Thirteen sites were evaluated for the establishment of the AFRC in Brownsville, Texas, but only three were identified as viable. One of these viable sites was identified as the Preferred Site. Establishment of the AFRC at this Preferred Site would require the purchase of approximately 11 acres from private ownership.

The new AFRC would be comprised of approximately 53,018 square feet of total building space, including assembly, educational, storage, weapons simulator, and physical fitness training facilities. An additional 13,018 square feet would be developed into parking lots. The entire facility would require approximately 11 acres; including stormwater detention ponds. No additional expansion to or demands on training areas or airspace would be required for the Proposed Action. No additional weapons systems would be associated with the establishment or operation of the AFRC.

Alternatives: Alternatives to the Proposed Action have been examined according to two screening criteria: means to physically accommodate realigned units and siting of new construction. In addition, specific criteria require that the site is a minimum size of 8 acres and has a minimum side length of 500 feet. The latter is required to ensure sufficient size to comply with AT/FP requirements of 200-foot wide setbacks.

Twelve other sites were evaluated during the site selection process; however, only two other sites (Site 16 and 10) were carried forward for analysis. Alternative Site 16 is located approximately 4 miles to the west of the Preferred Site while Alternative Site 10 is located

approximately 5 miles northwest of the Preferred Site. Similar conditions exist at both sites, and they are carried forward for detailed evaluation. However, if, for some reason the Preferred Site cannot be obtained, supplemental NEPA documentation would be required to fully evaluate the use of these alternative sites. The reasons for rejecting the remaining potential sites varied from the sites being within the 100-year floodplain to not meeting minimum Department of Defense linear frontage requirements for anti-terrorism and force protection measurements.

Environmental Consequences: Construction of the AFRC facility at the proposed location would permanently convert up to 11 acres of disturbed grassland to impervious surfaces. No long-term or significant impacts on protected species, cultural resources, water quality, or socioeconomic resources would occur as a result of the Proposed Action. Temporary and insignificant impacts on air quality and noise would occur during construction activities. Traffic patterns at the new site would be slightly altered by the proposed construction and operation of the AFRC. Additionally, insignificant impacts on aesthetic and visual resources and utilities would occur as a result of the establishment of the AFRC at the proposed site. No significant impacts due to the presence of hazardous or toxic substances would occur upon implementation of the Proposed Action, therefore, no further investigation is recommended.

Best Management Practices: All temporarily disturbed sites would be re-seeded as soon as practicable after completion of the construction activities to control erosion and sedimentation. For those areas that would not be landscaped or routinely maintained, native vegetation seeds would be used for re-seeding activities, in accordance with Section 7(a)(1) of the Endangered Species Act. A Stormwater Pollution Prevention Plan (SWPPP) and Notice of Intent would need to be prepared and submitted prior to construction. The SWPPP would identify best management practices (BMP) to be implemented for erosion and sedimentation control during construction. If straw bales are used, weed seed-free straw would be used to avoid introduction or expansion of invasive or noxious weeds.

Wetting solutions, including water, would be applied to disturbed soils within the construction site to control fugitive dust. All construction equipment and material would be properly maintained and stored to reduce air emissions and avoid potential spills of hazardous materials.

If the breeding/nesting season for migratory birds can not be avoided during the initial grubbing and clearing of the site, breeding bird pairs and nests would need to be identified and avoided, in accordance with the Migratory Bird Treaty Act.

Conclusion: The data presented in the EA documents that the best available site for the proposed construction and operation of the AFRC is at the Preferred Site and that development of this site would result in insignificant adverse impacts on the area's human and natural environment.

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SECTION 1.0
PURPOSE, NEED, AND SCOPE

1.0 Purpose, Need, and Scope

1.1 Introduction

On September 8, 2005, the Defense Base Realignment and Closure Commission (BRAC Commission) recommended that certain actions occur concerning the United States Army Reserve Center (USARC) in Brownsville, Texas. These recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The Congress did not alter any of the BRAC Commission's recommendations, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended (BRAC 2005).

The BRAC Commission recommended the closure of the Brownsville USARC and relocation to a new Armed Forces Reserve Center (AFRC) and Operational Maintenance Shop in Brownsville, Texas, and to accommodate the relocation of Texas Army National Guard (ARNG) units, if the state decides to relocate these units. To enable implementation of this recommendation, the Army proposes to provide necessary facilities to support the establishment of the AFRC and relocation of the units to the AFRC. This Environmental Assessment (EA) analyzes the relative environmental effects associated with the Army's Proposed Action in Brownsville, Texas. Details on the Proposed Action are presented later in Section 2.0.

1.2 Purpose and Need

The purpose of the Proposed Action is to implement the BRAC Commission's recommendation pertaining to the closure of the Brownsville USARC and relocation of the units to the new AFRC in Brownsville.

These actions are required to implement the BRAC Commission recommendations to realign and transform Reserve Component facilities in Brownsville, Texas. The Army is legally bound to defend the United States (U.S.) and its territories, support National policies and objectives, and defeat nations responsible for aggression that endangers the peace and security of the U.S. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations.

In previous rounds of BRAC, the explicit goal was to save money and downsize the military in order to reap a "peace dividend." In the 2005 BRAC round, the Department of Defense (DoD) sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations at Brownsville to achieve the objectives for which Congress established the BRAC process.

1.3 Scope

This EA has been developed in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations issued by the President's Council on Environmental

Quality (CEQ) and the Army. Its purpose is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and alternatives.

This EA identifies, documents, and evaluates environmental effects of the construction and operation of a new AFRC and Operational Maintenance Shop in Brownsville, Texas to accommodate the proposed relocation of units from the existing Brownsville USARC, which will be closed in accordance with BRAC 2005. The proposed AFRC site is located north of downtown Brownsville, Cameron County, in southeastern Texas (Figure 1-1). An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians analyzed the Proposed Action and alternatives in light of existing conditions at the Preferred Site and identified relevant beneficial and adverse effects associated with the action. The Proposed Action is described in Section 2.0, and alternatives, including the No Action alternative, are described in Section 3.0. Conditions existing as of 2008, considered to be the "baseline" conditions, are described in Section 4.0, Affected Environment and Environmental Consequences of the EA. The expected effects of the Proposed Action, also described in Section 4.0, are presented immediately following the description of baseline conditions for each environmental resource addressed in the EA. Section 4.0 addresses the potential for cumulative effects, and mitigation measures that are identified, where appropriate.

The Defense Base Closure and Realignment Act of 1990 specifies that the NEPA does not apply to actions of the President, the Commission, or the Department of Defense, except "(i) during the process of property disposal, and (ii) during the process of relocating functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected, but before the functions are relocated" (Sec. 2905(c)(2)(A), Public Law 101-510, as amended). The law further specifies that in applying the provisions of NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider "(i) the need for closing or realigning the military installation which has been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected" (Sec. 2905(c)(2)(B)). The Commission's deliberation and decision, as well as the need for closing or realigning a military installation, are exempt from NEPA.

1.4 Public Involvement

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the Proposed Action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process.

Public participation opportunities with respect to the EA and decision-making on the Proposed Action are guided by 32 CFR Part 651. Upon completion, the EA will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI). A Notice of Availability for the EA will be published in the *Brownsville Herald*. The EA will be available for review at public libraries and on-line at the following URL address: http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. At the end of the 30-day public review period, the Army will consider any comments submitted by individuals, agencies, or organizations on the Proposed Action, the EA, or draft FNSI. As appropriate, the Army may then execute the FNSI and proceed with implementation of the Proposed Action.

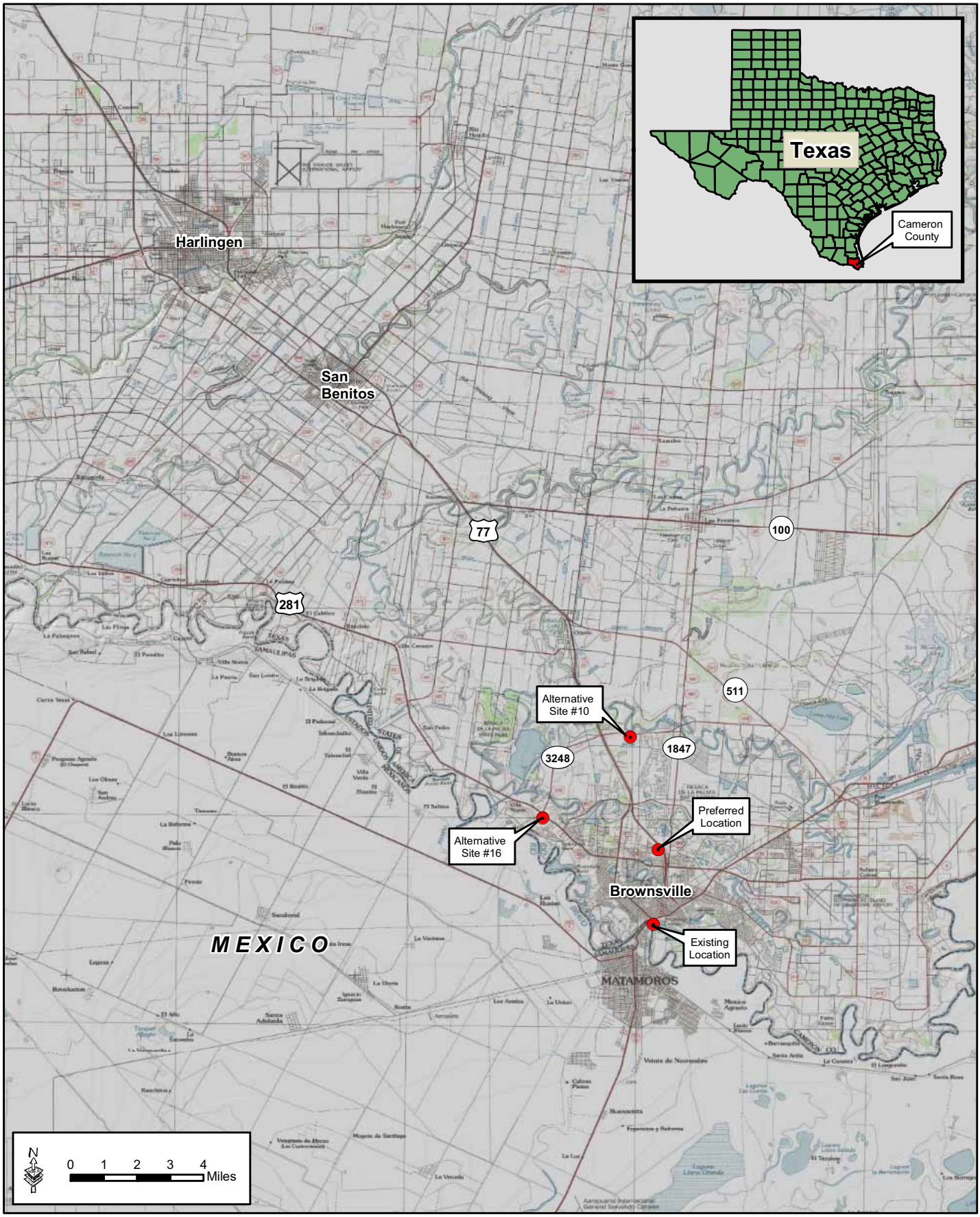

Figure 1-1: Vicinity Map

GSRC

January 2009

If it is determined prior to issuance of a final FNSI that implementation of the Proposed Action would result in significant impacts, the Army will publish in the *Federal Register* a notice of intent to prepare an environmental impact statement, commit to mitigation actions sufficient to reduce impacts to less than significant levels, or not take the action.

Throughout this process, the public may obtain information on the status and progress of the Proposed Action and the EA through the U.S. Army Reserve (USAR) 90th Regional Readiness Command (RRC) by contacting Mr. James Wheeler, II, Chief, Environmental Division, 8000 Camp Robinson Road, North Little Rock, Arkansas 72118-2205 or by telephone at (501) 771-7992.

1.5 Regulatory Framework

A decision on whether to proceed with the Proposed Action rests on numerous factors, such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, the U.S. Army Corps of Engineers (USACE) Mobile District and the 90th RRC are guided by relevant statutes (and their implementing regulations) and Executive Orders (EO) that establish standards and provide guidance on environmental and natural resources management and planning. Establishment of the AFRC in Brownsville requires compliance with the Federal regulations and EOs presented below in Table 1-1. The current compliance status is also presented.

Table 1-1. Summary of Relevant Regulations Including Potential Permits or Licensing Requirements

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
FEDERAL				
General	National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.)	Council on Environmental Quality (CEQ)	Compliance with NEPA, in accordance with CEQ regulations (40 CFR 1500-1508)	Full compliance would be achieved upon issuance of signed FNSI (if appropriate)
	32 CFR 651 (Environmental Analysis of Army Actions)	Department of the Army	Compliance with regulations specified in 32 CFR 551	Full compliance would be achieved upon issuance of signed FNSI (if appropriate)
Sound/ Noise	Noise Control Act of 1972 (42 USC 4901 et seq.), as amended by Quiet Communities of 1978 (P.L. 95-609)	United States Environmental Protection Agency (EPA)	Compliance with surface carrier noise emissions	Full compliance would be achieved upon implementation of construction activities
Air	Clean Air Act and amendments of 1990 (42 USC 7401-7671q) 40 CFR 50, 52, 93.153(b)	EPA	Compliance with National Ambient Air Quality Standards (NAAQS) and emission limits and/or reduction measures	Full compliance; emissions would be below *de minimis* thresholds

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Water	Clean Water Act of 1977 (33 USC 1342) 40 CFR 122	EPA and Texas Commission on Environmental Quality (TCEQ)	Section 402(b) National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges for Construction Activities-Stormwater Pollution Prevention Plan (SWPPP)	SWPPP and Notice of Intent would be prepared prior to construction. Full compliance would be achieved prior to implementation of construction activities
	Executive Order 11988 (Floodplain Management), as amended by Executive Order 12608	Water Resources Council, Federal Emergency Management Agency (FEMA), CEQ	Compliance	Full compliance
	Executive Order 11990 (Protection of Wetlands), as amended by Executive Order 12608	USACE and U.S. Fish and Wildlife Service (USFWS)	Compliance	Full compliance
	Clean Water Act of 1977 (33 USC 1341 et seq.)	USACE and TCEQ	Section 401/404 Permit	No permits needed.
	Coastal Zone Management Act of 1972 (16 USC 1456[c]) Section 307	National Oceanic and Atmospheric Administration	Compliance	Preferred Site not within the coastal zone.
Soils	Resource Conservation and Recovery Act of 1976 (42 USC 6901-6992k), as amended by Hazardous and Solid Waste Amendments of 1984 (P.L. 98-616; 98 Stat. 3221)	EPA	Proper management, and in some cases, permit for remediation	A Phase II investigation of residual BTEX and PAH contamination in soils and groundwater from the vicinity of the former USTs at the former Coca Cola Bottling Plant and the proposed new AFRC building location determined that current contamination levels are below current TCEQ corrective action levels.

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Soils, continued	Comprehensive, Environmental Response, Compensation, Liability Act of 1980 (42 USC 9601-9675), as amended by Emergency Planning and Community Right-To-Know-Act of 1986 (42 USC 11001 et seq.) Release or threatened release of a hazardous substance	EPA	Development of emergency response plans, notification, and cleanup	Full compliance
	Farmland Protection Policy Act of 1981 (7 USC 4201 et seq.) 7 CFR 657-658 Prime and unique farmlands	Natural Resource Conservation Service (NRCS)	NRCS determination via Form AD-1006	Full Compliance. No prime farmlands. DoD acquisition is exempt from completing Form AD-1006
Natural Resources	Endangered Species Act of 1973, as amended (16 USC 1531-1544)	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance since no protected species would be impacted. Concurrence received from USFWS on 3 March 2009
	Migratory Bird Treaty Act of 1918	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance would be achieved upon implementation of construction activities. If initial grubbing and clearing can not avoid nesting season, breeding pairs and nests would be identified and avoided to the extent practicable
	Bald and Golden Eagle Act of 1940, as amended	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, obtain permit	No effects on bald or golden eagles; full compliance
Health and Safety	Occupational Safety and Health Act of 1970	Occupational Safety and Health Administration (OSHA)	Compliance with guidelines including Material Safety Data Sheets	Full compliance would be achieved upon implementation of construction activities
Cultural/ Archaeo-logical	National Historic Preservation Act of 1966	Advisory Council on Historic Preservation through State Historic Preservation Officer (SHPO)	Section 106 Consultation	Full compliance; no historic properties would be affected. Concurrence from Texas Historical Commission was received on 30 March 2009.

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Cultural/ Archaeo-Logical, continued	Archaeological Resources Protection Act of 1979	Affected land-managing agency	Permits to survey and excavate/remove archaeological resources on Federal lands; Native American tribes with interests in resources must be consulted prior to issue of permits.	Full compliance
	EO 13175 (*Consultation and Coordination with Indian Tribal Governments*)	Bureau of Indian Affairs (BIA)	Coordinate directly with Tribes claiming cultural affinity to project areas	Full compliance
Social/ Economic	Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) of 1994	EPA	Compliance	Full compliance since no minority or low income populations would be affected
	EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*)	EPA	Compliance	Full compliance since no children would be exposed to the construction activities
	EO 13101 (*Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*)	EPA	Compliance	Full compliance
	EO 13123 (*Greening the Government Through Efficient Energy Management*)	EPA	Compliance	Full compliance
	EO 13148 (*Greening the Government Through Leadership in Environmental Management*)	EPA	Compliance	Full compliance

These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full text of the laws, regulations, and EOs is available on the Defense Environmental Network & Information Exchange Web site at http://www.denix.osd.mil.

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SECTION 2.0
PROPOSED ACTION

2.0 Proposed Action

2.1 Introduction

This section describes the Army's preferred alternative for carrying out the BRAC Commission's recommendations. The BRAC Commission approved the following recommendation concerning the Brownsville USARC:

> "*Close the United States Army Reserve Center, Brownsville, TX, and relocate units to a new Armed Forces Reserve Center with a Operational Maintenance Shop in Brownsville, TX, if the Army is able to acquire land suitable for the construction of facilities. The new AFRC shall have the capability to accommodate Texas National Guard Units from the Texas ARNG Readiness Center in Brownsville, TX, if the state decides to relocate those National Guard units.*"

Therefore, the Proposed Action is to construct and operate a new AFRC in Brownsville to accommodate the closure of the Brownsville USARC and to relocate the units to the new AFRC. The Preferred Site, depicted in Figure 2-1, is located near U.S. Highway 83, about 2 miles north of downtown Brownsville. The new 200-member AFRC would include administrative, assembly, educational, storage, weapons simulator, and physical fitness training facilities to accommodate one USAR unit and one Texas ARNG unit, if the state chooses to use the AFRC. The main AFRC building would be of permanent construction and approximately 45,395 square feet (SF) in size excluding storage areas, associated parking areas, sidewalks and landscaping. The action would also include construction of an Operational Maintenance Shop and storage facilities. All other associated infrastructure (e.g., plumbing, electrical systems; heating, ventilation, and air conditioning [HVAC] systems; and anti-terrorism/force protection [AT/FP] systems) would also be provided.

The Preferred Site is approximately 11 acres (Figure 2-2). These inactivation and relocation actions, beginning in Fiscal Year 2010, support the BRAC Commission's recommendation.

2.2 Force Structure

Force structure refers to the numbers, size, and composition of units comprising Army forces. BRAC 05 Commission recommendations concerning the Brownsville AFRC include changes of force structure through the reassignment of units from closing the Brownsville USARC. As a result of proposed relocation, there would be no net change of active duty and civilian personnel at the Brownsville AFRC.

2.3 Garrison Facilities

Implementation of the Proposed Action would require the construction of a 200-member AFRC in Brownsville, Texas that would include administrative, educational, weapons simulator, vehicle maintenance, library, and storage areas. Table 2-1 identifies the proposed facilities projects. New construction projects would provide approximately 53,018 SF of total building space and 13,018 SF of parking.

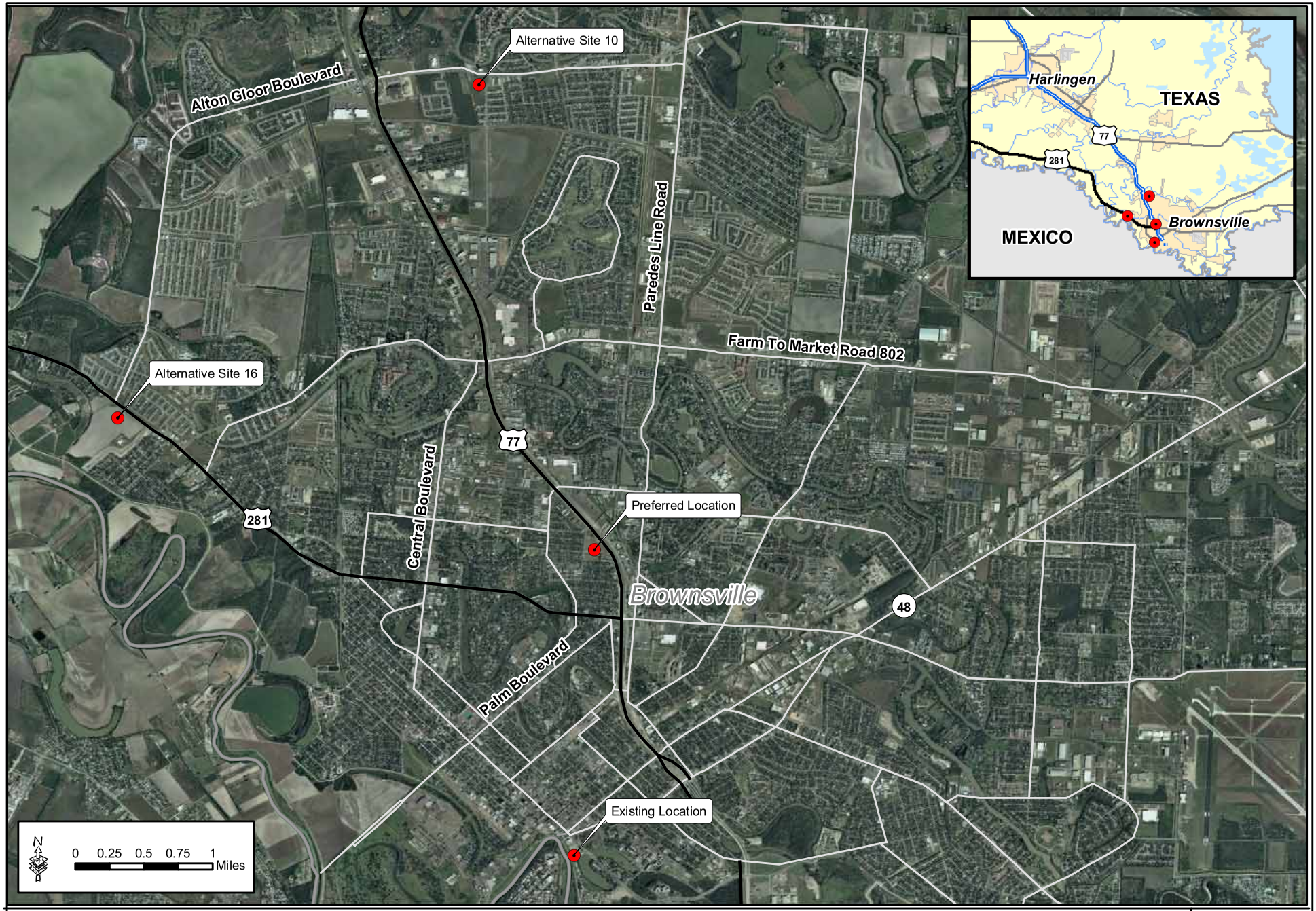

Figure 2-1: Existing, Preferred and Alternative Site Locations

GSRC

March 2009

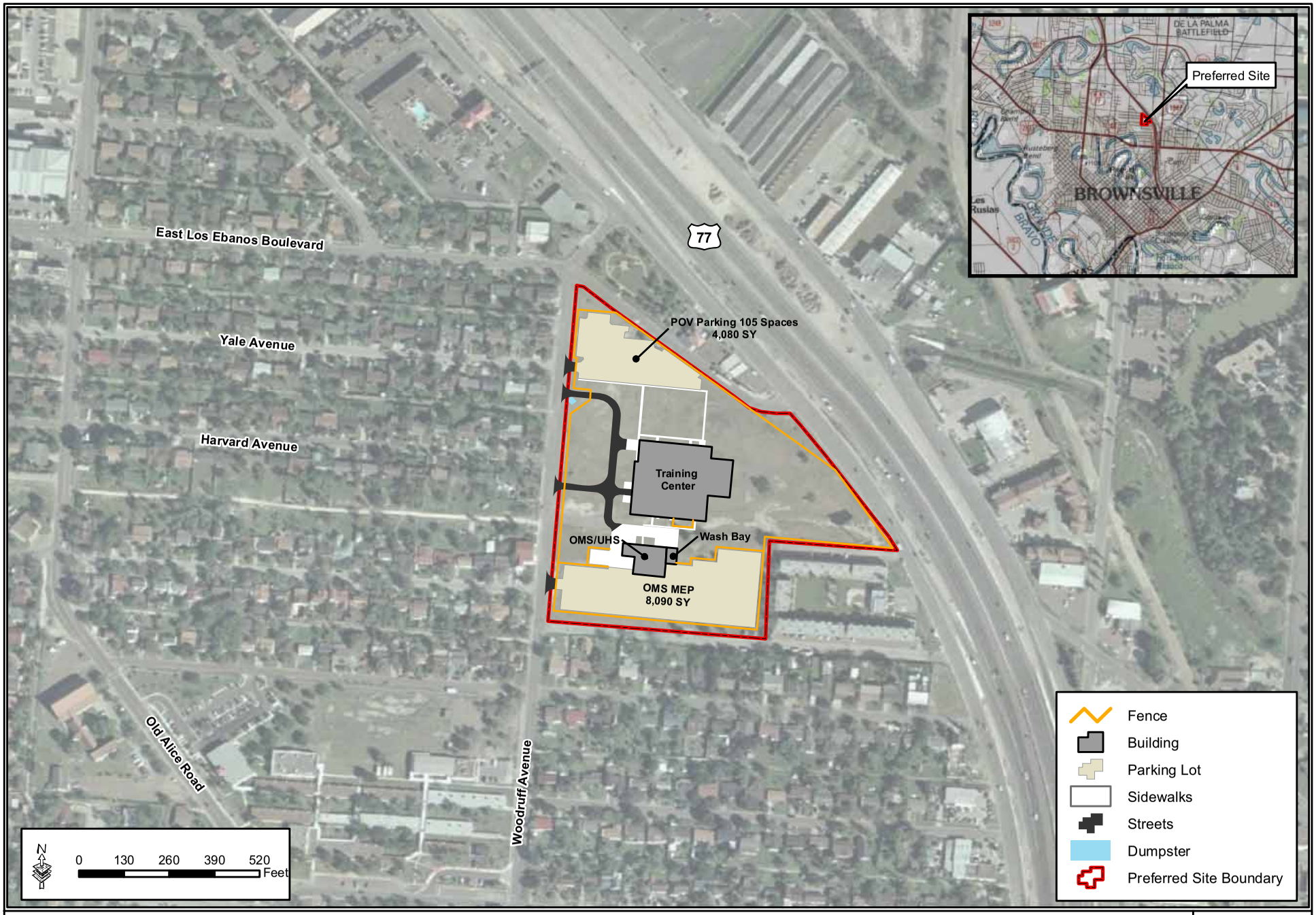

Figure 2-2: Preferred Site Depiction

GSRC

March 2009

Table 2-1. Proposed Construction Projects

Facility	Square Feet (approximate)
Armed Forces Reserve Center	45,395
Vehicle Maintenance Shop	4,763
Organizational Storage Unit	2,860
Parking	13,018
Total	**66,036**

No net gain of personnel (military and civilians) assigned to the Brownsville AFRC would occur as the Proposed Action would involve relocation of the units at the existing USARC. No change in housing needs would occur since the new AFRC would be less than 3 miles from the existing Brownsville USARC. No demolition would be required under the Proposed Action at the Preferred Site, since the Preferred Site is vacant.

2.4 Training Facilities and Airspace

There would be no change to training range size or operations or airspace demands as a result of the Proposed Action. Units that use the Brownsville USARC would continue to use Fort Hood, Texas and Camp Bullis, Texas as field training sites.

2.5 Weapon Systems

There would be no weapon systems used at the Brownsville AFRC as a result of the Proposed Action.

2.6 Schedule

Under the BRAC law, the Army must have initiated all realignments not later than September 15, 2007, and complete all realignments not later than September 15, 2011. Implementation of the Proposed Action would occur over a span of approximately 3 years. Facilities construction would be synchronized to meet the needs, on a priority basis, of units being relocated from overseas. Establishment of new units would occur as facilities for their operations and support become available. Table 2-2, below, is a tentative schedule for the design, construction activities and the proposed realignment actions.

Table 2-2. Tentative Dates for Completion of Major Items Associated with Relocation of Units at Brownsville, Texas

Action	Tentative Start Date	Tentative Completion Date
Design of New Facility	December 2008	October 2009
Construction of New Facility	January 2010	June 2011
Realignment of Brownsville USARC to the new Brownsville AFRC	October 2010	September 2011

SECTION 3.0
ALTERNATIVES

3.0 Alternatives

3.1 Introduction

A basic principle of NEPA is that an agency should consider reasonable alternatives to a Proposed Action. Considering alternatives helps to avoid unnecessary impacts and allows analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be ready for decision making (any necessary preceding events having taken place), affordable, capable of implementation, and satisfactory with respect to meeting the purpose of and need for the action. The following discussion identifies alternatives considered by the Army and identifies whether they are feasible and, hence, subject to detailed evaluation in this EA.

Alternatives to the Proposed Action have been examined according to two variables: means to physically accommodate realigned units and siting of new construction. This section presents the Army's development of alternatives and addresses alternatives available for the Proposed Action. The section also describes the No Action alternative.

Siting criteria includes consideration of location of the workforce and efficient, streamlined management of functions. The site must also be a minimum size of 8 acres and have minimum side lengths of 500 feet. The latter is required to ensure sufficient size to comply with AT/FP requirements of 200-foot wide setbacks.

3.2 Development of Alternatives

3.2.1 Means to Accommodate Realigned Units

Other means or measures to relocate the USAR units to Brownsville would not be in compliance with the BRAC Commission's recommendations. Thus, other means of providing increased space requirements, including use of existing facilities, modernization or renovation of existing facilities, and leasing of off-post facilities are not considered viable and were eliminated from further consideration, as will be discussed later.

3.2.2 Siting of New Construction

The Army considers new construction of facilities when use of existing facilities, renovation, or leasing would fail to provide for adequate accommodations of realigned functions. The Army considers both general and specific siting criteria for construction of new facilities. The USACE, Fort Worth District, prepared the Available Site Identification and Validation (ASIV) Report for the proposed establishment of the new AFRC. The ASIV and the Site Survey Report identified two other sites as viable sites for the siting of the new AFRC.

3.2.2.1 Alternative Site 16

Alternative Site 16 (see Figure 2-1) is located within a 27-acre parcel of land located approximately 5 miles to the west of the Preferred Site near U.S. Highway 281. This site is currently undeveloped and used for agricultural production (corn crop). This site and the Preferred Site conform to the local building ordinances and adhere to the siting criteria described above. This project has been coordinated with the 90th RRC's physical security plan, and all physical security measures would be included. All required AT/FP measures would also be included. This site meets the site selection criteria described above and will be carried forward as a viable alternative site.

3.2.2.2 Alternative Site 10

Alternative Site 10 (see Figure 2-1) is located within a 12.8-acre parcel of land located approximately 5 miles to the northwest of the Preferred Site. Similar to Alternative Site 16 and the Preferred Site, this site conforms to the local building ordinances and adheres to the siting criteria described above. This project has been coordinated with the 90th RRC's physical security plan, and all physical security measures would be included. All required AT/FP measures would also be included. This site meets the site selection criteria described above and will be carried forward as a viable alternative site.

3.3 No Action alternative

CEQ regulations require inclusion of the No Action alternative. Under the No Action alternative, the Brownsville USARC would not be closed and the USAR units would not be relocated to a new AFRC. However, since the closure and establishment of a new AFRC has been mandated by Congress and the President, the No Action alternative will serve only as a baseline against which the impacts of the Proposed Action and Alternative Sites 16 and 10 can be evaluated.

SECTION 4.0
AFFECTED ENVIRONMENT AND CONSEQUENCES

4.0 Affected Environment and Consequences

4.1 Introduction

This section of the EA describes the natural and human environment that exists at and surrounding the Preferred Site in Brownsville, and the potential effects on those resources as a result of the Proposed Action and alternatives. For the purposes of this EA, the project site is defined as the 11 acres identified as the Preferred Site for construction of the AFRC. The project area includes Brownsville and the lands surrounding the Preferred Site. The project region or vicinity is Cameron County.

Only those parameters that have the potential to be affected by the Proposed Action and alternatives are described, as per CEQ guidance (40 CFR 1501.7 [3]). Therefore, resources and items, such as climate, air space, energy sources, geology, coastal zone resources, communication systems, and solid waste are not addressed for the following reasons:

- Climate—the proposed project would not affect, nor be affected by, climate.
- Air space—the proposed project does not involve any additional aircraft training, and, thus, air space would not be affected.
- Energy Sources— slight increases in energy consumption would occur during the construction of the AFRC facility. However, the majority of the energy demands at the preferred site would be met by the same regional grid as currently utilized at the existing USARC.
- Coastal zone—the Preferred Site is not located within Texas' coastal zone.
- Communication systems—the project would have negligible additional demand or other impact on local or regional communication systems.
- Geology—The Brownsville area geology consists of Beaumont Formation of Pleistocene age with Holocene segments underlying it. There is expansive clay and mud and it is locally hilly with flat to low areas and a maximum elevation of 300 ft. No geologic resources of any importance are present, and no impacts on surface or subsurface geology would occur as a result of any of the alternatives. Therefore, further analysis of geology impacts is not necessary for this EA.
- Solid waste—the Proposed Action would not result in increased production of solid waste in the region since the majority of the personnel would be relocated from the existing Brownsville USARC, to the new AFRC location, which is approximately 2 miles away from the existing Brownsville USARC.

An impact (consequence or effect) is defined as a modification of the human or natural environment that would result from the implementation of an action. The impacts can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action (secondary, indirect, or synergistic effects). The effects can be temporary (short-term), long lasting (long-term), or permanent. For purposes of this EA, temporary effects are defined as those that would last less than 3 years after completion of the action. Long-term impacts are defined as those that would last up to 20 years. Permanent impacts are those that may reasonably be expected to endure beyond the 20-year time frame established for long-term impacts.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. The significance of the impacts presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and/or best professional opinions of the authors of the EA. The significance of the impacts on each resource will be described as significant, moderate, minimal, insignificant (or negligible), or no impact. Significant impacts are those effects that would result in substantial changes to the environment and should receive the greatest attention in the decision-making process.

4.2 Land Use

4.2.1 Affected Environment

4.2.1.1 Regional Setting

The Preferred Site is located in the southeastern tip of Texas, north of downtown Brownsville in Cameron County. Brownsville is a city of 172,437 residents (U.S. Census Bureau 2006). The site is located near U.S. Highway 83, about 2 miles north of downtown Brownsville.

4.2.1.2 Installation Land Use

Currently, the USAR and the ARNG are housed in two separate facilities, the Rathjen USARC and the Brownsville Readiness Center. These centers are utilized at 125 percent and 218 percent capacity, respectively. The Rathjen USARC was built in 1986, and the Brownsville Readiness Center was constructed in 1966. Both facilities would require extensive additions and alterations and are also surrounded by residential and commercial properties that would prohibit expansion for new building construction.

4.2.1.3 Current and Planned Development

The Preferred Site is currently undeveloped land under private ownership that contains no existing buildings or structures. Currently, the Preferred Site contains Bermuda (*Cynodon dactylon*), costal (*Sporobolus* sp.), and Johnson grasses (*Sorghum halepense*), with a few small mesquite trees (*Prosopis glandulosa*) scattered throughout the site (Photograph 4-1). The site is bordered by North Expressway 77/83, East Los Ebanos Boulevard, and Woodruff Avenue. The site is surrounded on two sides by residential housing and an apartment complex, as well as commercial properties. There is a bus stop located on Woodruff Avenue, just south of the property. The area is zoned for commercial. There are currently no development or improvement plans for the Preferred Site or surrounding area (Golden 2009).

Photograph 4-1. View of Preferred Site looking West

4.2.2 Environmental Consequences

4.2.2.1 Proposed Action

Construction and operation of the AFRC at the Preferred Site would eliminate approximately 11 acres of disturbed grass land and permanently replace these acres with pavement and hard structures. Therefore, the entire 11 acres would be disturbed by the Proposed Action and converted to military uses. The main AFRC building would be of permanent construction and approximately 45,395 SF in size excluding storage areas, associated parking areas, sidewalks, and landscaping. The Proposed Action would also include construction of a maintenance facility (4,763 SF), additional storage facilities (2,860 SF), and parking (13,018 SF). This land use is consistent with the current commercial zoning for this site. Therefore, negligible adverse impacts on land use would occur upon implementation of the Proposed Action.

4.2.2.2 Alternative Site 16

Alternative Site 16 is located within a 27-acre parcel of land located approximately 5 miles to the west of the Preferred Site near Highway 281. As depicted in Photograph 4-2, this site is currently undeveloped and used for agricultural production (corn crop). The area is zoned for commercial. Most land surrounding the site is currently vacant, but some single family residential homes do occur adjacent to the site. There are currently no development or improvement plans for Alternative Site 16 or the surrounding area (Golden 2009). The construction and operation of the proposed AFRC at this site is consistent with the current zoning and would result in similar impacts as described above for the Preferred Site.

Photograph 4-2. View of Alternative Site 16 looking East

4.2.2.3 Alternative Site 10

Alternative Site 10 is located within a 12.8-acre parcel of land located approximately 5 miles to the south of the Preferred Site near Alton Gloor Boulevard at Pablo Kisel Boulevard. This site is currently undeveloped, maintained grassland (Photograph 4-3). The area is zoned for commercial. There are residential homes located along Pablo Kisel Boulevard directly across from the site. Several commercial, retail businesses are located along Alton Gloor Boulevard near the site. There are currently no development or improvement plans for Alternative Site 10 or the surrounding area (Golden 2009). The

Photograph 4-3. View of Alternative Site 10 looking Southwest

construction and operation of the proposed AFRC at this site is consistent with the current zoning and would result in similar impacts as described above for the Preferred Site.

4.2.2.4 No Action alternative

Under the No Action alternative, the Rathjen USARC and the Brownsville Readiness Center would not be closed, and the USAR units would not be relocated to a new AFRC. Thus, no direct short-term changes in land use to the Preferred Site would occur under the No Action alternative.

4.3 Aesthetics and Visual Resources

4.3.1 Affected Environment

The Preferred Site is currently surrounded by residential and apartment housing. It is undeveloped, but does contain several concrete slabs that appear to have been left after clearing of previous buildings from the site (Photograph 4-4). The site is zoned for commercial use and presently there is a bus stop located at the back of property. Consequently, the site has limited visual qualities.

Photograph 4-4. Old concrete slabs located at Preferred Site

4.3.2 Environmental Consequences

4.3.2.1 Proposed Action

Construction and operation of the AFRC at the Preferred Site would eliminate approximately 11 acres of undeveloped land and permanently replace these acres with pavement and hard structures. Temporary construction areas would need to be immediately replanted with native vegetation to avoid additional long-term or permanent adverse effects to the area's aesthetic resources. Nonetheless, because of the small amount of acreage impacted and existing land uses at (i.e., zoned commercial) and surrounding the Preferred Site, the permanent and temporary effects to the aesthetics and visual resources of the area would be considered negligible.

4.3.2.2 Alternative Site 16

Alternative Site 16 is currently undeveloped, but in active agricultural production. Some housing development and light industry surround the site; as such, aesthetics are not an issue of concern. Because of the surrounding land uses, in conjunction with the current condition of Alternative Site 16, negligible impacts to aesthetics would occur if this alternative were implemented.

4.3.2.3 Alternative Site 10

Alternative Site 10 is currently undeveloped, but numerous residential and commercial properties surround the site. The housing developments and retail stores in the area have degraded the visual quality of the site. As such, aesthetics are not an issue of concern. Because of the surrounding land uses, in conjunction with the current condition of Alternative Site 10, negligible impacts to aesthetics would occur if this alternative were implemented.

4.3.2.4 No Action alternative

Implementation of the No Action alternative would allow the proposed construction sites to remain in the current conditions, at least for the short-term. All three sites would continue to be vacant, unimproved land with limited visual qualities.

4.4 Air Quality

4.4.1 Affected Environment

The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the general public. Ambient air quality standards are classified as either "primary" or "secondary." The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5) and lead (Pb). NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 4-1.

Table 4-1. National Ambient Air Quality Standards

POLLUTANT	STANDARD VALUE	STANDARD TYPE
Carbon Monoxide (CO)		
8-hour average	9ppm (10mg/m^3)*	P
1-hour average	35ppm (40mg/m^3)*	P
Nitrogen Dioxide (NO_2)		
Annual arithmetic mean	0.053ppm (100μ/m^3)*	P and S
Ozone (O_3)		
8-hour average	0.08ppm (157μg/m^3)*	P and S
1-hour average	0.12ppm (235μg/m^3)*	P and S
Lead (Pb)		
Quarterly average	1.5μg/m^3	P and S
Particulate<10 micrometers (PM-10)		
Annual arithmetic mean	50μg/m^3	P and S
24-hour average	150μg/m^3	P and S
Particulate<2.5 micrometers (PM-2.5)		
Annual arithmetic mean	15μg/m^3	P and S
24-hour average	65μg/m^3	P and S
Sulfur Dioxide (SO_2)		
Annual average mean	0.03ppm (80μg/m^3)	P
24-hour average	0.14ppm (365μg/m^3)	P
3-hour average	0.50ppm (1300μg/m^3)	S

Legend: P= Primary S= Secondary Source: EPA 2006.
ppm = parts per million
mg/m^3 = milligrams per cubic meter of air
μg/m^3 = micrograms per cubic meter of air
* Parenthetical value is an approximate equivalent concentration

Areas that do not meet these NAAQS standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993

by the EPA, following the passage of Amendments to the Clean Air Act in 1990. The rule mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.

A conformity analysis is the process used to determine whether a Federal action meets the requirements of the Federal Conformity Rule. It requires the responsible Federal agency to evaluate the nature of a Proposed Action and associated air pollutant emissions, and calculate emissions as a result of the Proposed Action. If the emissions exceed established limits, known as *de minimis* thresholds, the proponent is required to implement appropriate mitigation measures. The EPA considers Cameron County as an attainment area for all NAAQS (EPA 2008).

4.4.2 Environmental Consequences

4.4.2.1 Proposed Action

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustible emissions) and the disturbance of soils (fugitive dust) during construction of the AFRC. Fugitive dust emissions were calculated using the emission factor of 0.19 ton per acre per month (Midwest Research Institute 1996), which is a more current standard than the 1985 PM -10 emission factor of 1.2 tons per acre-month presented in AP- 42 Section 13 Miscellaneous Sources 13.2.3.3 (EPA 2001).

Combustible emission calculations were made for standard construction equipment, such as bulldozers, excavators, pole trucks, front-end loaders, backhoes, cranes, and dump trucks, using emission factors from EPA-approved emission model NONROAD6.2. Assumptions were made regarding the type of equipment, the total number of days each piece of equipment would be used, and the number of hours per day each type of equipment would be used. EPA's NONROAD Model (EPA 2005a) was used, as recommended by EPA's *Procedures Document for National Emission Inventory, Criteria Air Pollutants, 1985-1999* (EPA 2001), to calculate emissions from construction equipment such as bulldozers, cranes, etc.

Construction workers would temporarily increase the combustible emissions in the air shed during their commute to and from the project area. Similarly, emissions from delivery trucks contribute to the overall air emission budget. The existing AFRC is located in the Cameron County airshed so the commuters transferring to the new USARC would not increase the air emissions budget because they are located in the same airshed, Cameron County. The air emissions from delivery trucks and construction worker commuters traveling to the job site were calculated using the EPA MOBILE6.2 Model (EPA 2005a, 2005b, 2005c and 2005d). The construction emissions were calculated in the air emission analysis and included in the total emission estimates found in Table 4-2. Details of the analyses are presented in Appendix A.

Several sources contribute to the total air impacts of the construction project. The air calculations in Table 4-2 included emissions from:

1. Combustible engines of construction equipment.
2. Construction workers commuting to and from work.
3. Supply trucks delivering materials for construction.
4. Fugitive dust from job site ground disturbances.

Table 4-2. Cameron County Total Air Emissions (tons/year) from Construction Activities vs. *de minimis* Levels

Pollutant	Total (tons/year)	*de minimis* Thresholds (tons/year)[1]
CO	45.66	100
Volatile Organic Compounds	7.54	100
NOx	43.20	100
PM-10	17.42	100
PM-2.5	5.01	100
Sulfur dioxide (SO_2)	5.39	100

Source: *De-minimis* thresholds are from 40 CFR 51.853 and GSRC model projections
[1.] Note that Cameron County is in attainment for all NAAQS.

As can be seen in Table 4-2, air emission from the construction activities would not exceed *de minimis* thresholds and, thus, would not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, there would be minor, temporary impacts on air quality as a result of the Proposed Action.

During the construction of the AFRC, proper and routine maintenance of all vehicles and other construction equipment would ensure that emissions are within the design standards of the equipment. Dust suppression methods should be implemented to minimize fugitive dust. In particular, wetting solutions would be applied to construction areas to minimize the emissions of fugitive dust. By using these environmental control and design measures, air emissions from the Proposed Action would be temporary, and would result in minor impairments to air quality in the region.

4.4.2.2 Alternative Site 16

Alternative Site 16 is located in the Cameron County airshed. The impacts to the air quality would be similar to those described in the Proposed Action.

4.4.2.3 Alternative Site 10

Alternative Site 10 is located in the Cameron County airshed. The impacts to the air quality would be similar to those described in the Proposed Action.

4.4.2.4 No Action alternative

Implementation of the No Action alternative would not create additional air emissions in the Cameron County airshed.

4.5 Noise

4.5.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (i.e., hearing loss, damage to structures, etc.) or subjective judgments (e.g., community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as sound level. The threshold of human hearing is approximately 0 dB, and the threshold of discomfort or pain is around 120 dB.

Noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 dBA (A-weighted decibel is a measure of noise at a given, maximum level or constant

state level) louder than the same level of intrusive noise during the day, at least in terms of its potential for causing community annoyance. This perception is largely because background environmental sound levels at night in most areas are also about 10 dBA lower than those during the day.

Acceptable noise levels have been established by the U.S. Department of Housing and Urban Development (HUD) for construction activities in residential areas (HUD 1984):

> **Acceptable** (not exceeding 65 dBA) – The noise exposure may be of some concern but common building construction will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.
>
> **Normally Unacceptable** (above 65 but not greater than 75 dBA) – The noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.
>
> **Unacceptable** (greater than 75 dBA) – The noise exposure at the site is so severe that the construction costs to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.

As a general rule of thumb, noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces and 9 dBA over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 85 dBA at a reference distance of 50 feet over a hard surface, then the noise level would be 79 dBA at a distance of 100 feet from the noise source, 73 dBA at a distance of 200 feet, and so on. To estimate the attenuation of the noise over a given distance the following relationship is utilized:

$$\text{Equation 1: } dBA_2 = dBA_1 - 20 \log^{(d2/d1)}$$

Where:

dBA_2 = dBA at distance 2 from source (predicted)

dBA_1 = dBA at distance 1 from source (measured)

d_2 = Distance to location 2 from the source

d_1 = Distance to location 1 from the source

Source: California Department of Transportation 1998

The Preferred Site is located adjacent to U.S. Highway 77 with residential neighborhoods located along the southern and western boundary. A local park, along with three commercial facilities, is located on the north side of the Preferred Site. Sensitive noise receptors (residential homes and apartments) are located approximately 60 feet from the southern and western border of the Preferred Site on Woodruff and Tulane avenues.

4.5.2 Environmental Consequences

4.5.2.1 Proposed Action

The installation of the new AFRC would require the use of common construction equipment. Table 4-3 describes noise emission levels at a distance of 50 to 100 feet for construction equipment which range from 76 dBA to 82 dBA at a distance of 50 feet (Federal Highway Administration 2007 [FHWA] 2007).

Table 4-3. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances[1]

Noise Source	50 feet	100 feet	200 feet	500 feet	1,000 feet
Backhoe	78	72	66	58	52
Crane	81	75	69	61	55
Dump truck	76	70	64	56	50
Excavator	81	75	69	61	55
Front end loader	79	73	67	59	53
Concrete mixer truck	79	73	67	59	53
Pneumatic tools	81	75	69	61	55
Bull dozer	82	76	70	62	56
Generator	81	75	69	61	55

Source: FHWA 2007 and GSRC

1. The dBA at 50 feet is a measured noise emission (FHWA 2007). The 100 to 1,000 foot results are GSRC modeled estimates.

Assuming the worst case scenario of 82 dBA, the noise model projected that noise levels of 82 dBA from a point source (i.e., bull dozer) would have to travel 370 feet before the noise would be attenuated to an acceptable level of 65 dBA. To achieve an attenuation of 82 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 110 feet.

Figure 4-1 depicts the 11 acre construction area and the 75 dBA (110 feet) and 65 dBA (370 feet) noise contour. Assuming the construction activities are contained within the delineated construction area, approximately 67 residential homes on Tulane Avenue and Woodruff Avenue reside within 370 feet of the edge of the Preferred Site boundary and 16 residential homes and one apartment building are located within 110 feet. These sensitive noise receptors may be exposed to unacceptable (75 dBA) and normally unacceptable (65 dBA) noise emissions. The Brownsville Park located north of the construction site would be exposed to noise emissions greater than 75 dBA on the southern end of the park and 65 dBA on the northern end of the park. Best Management Practices (BMP) such as the use of mufflers on all equipment and limiting construction activities to daylight hours, between 8:00 am to 5:00 pm, Monday through Friday would minimize any potential impacts. Noise impacts should be minor if these timing restrictions and other BMPs are implemented during construction. Noise generated by the construction of the AFRC would be intermittent and last for one year, after which, noise levels would return to ambient levels. Therefore, the noise impacts from construction activities would be considered temporary and moderate. Once complete, the operational noise levels would be similar to existing surrounding commercial operations and would account for minimal impacts to noise levels locally or regionally.

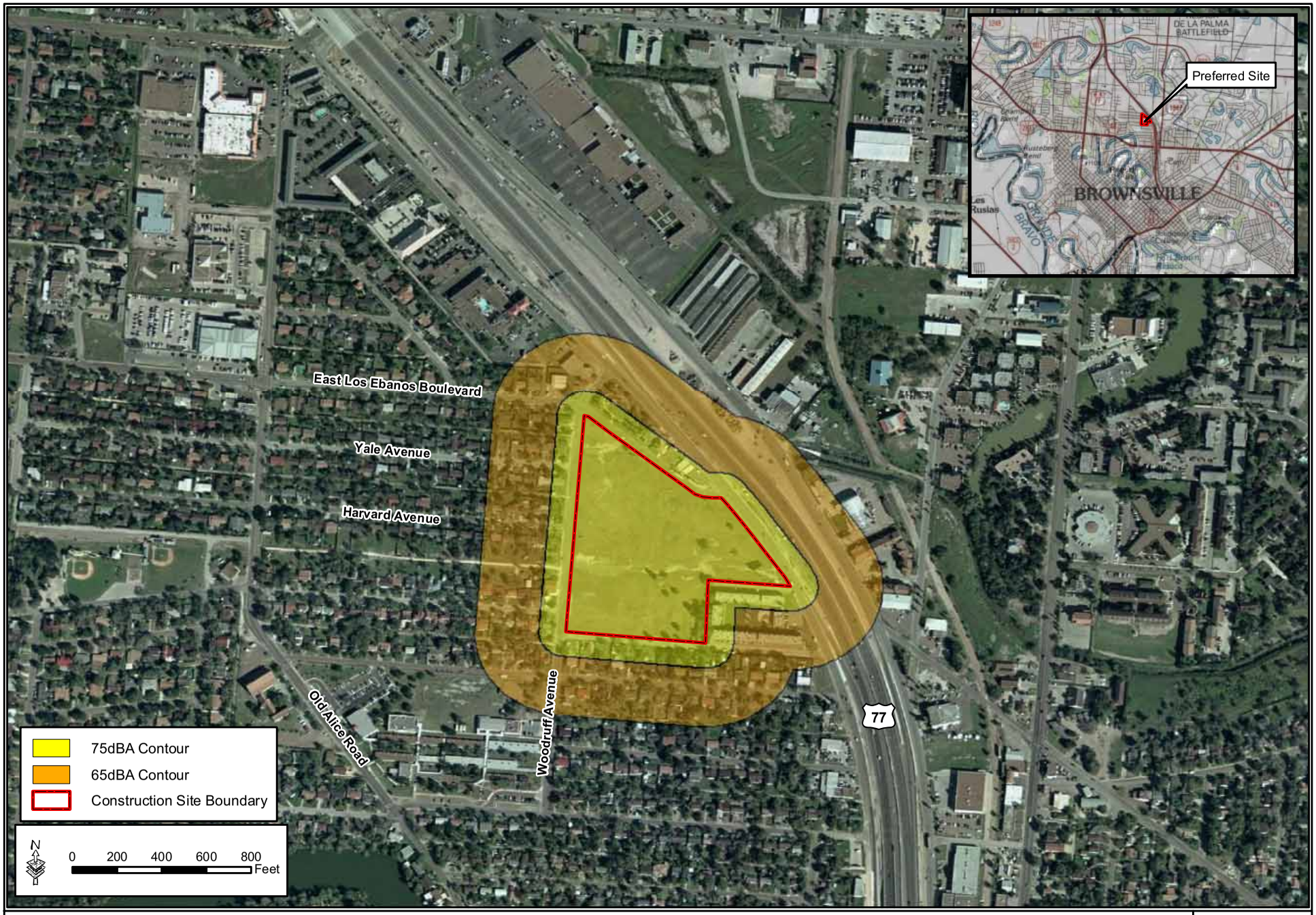

Figure 4-1: Noise Contour Map

GSRC

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4.5.2.2 Alternative Site 16

Alternative Site 16 is located in an agricultural field with few sensitive noise receptors located to the east of the project site. Noise emissions from construction activities at Alternative Site 16 would not create significant noise impacts to sensitive noise receptors in the area due to the short duration of construction activities. Operation of the AFRC would minimally contribute to increased noise levels locally or regionally as compared to the existing land uses (i.e., farming) and noise levels created from the adjacent highway.

4.5.2.3 Alternative Site 10

If this site were chosen, minimal impacts related to noise are expected to occur. Noise generated by the construction of the AFRC would be intermittent and last for 1 year, after which, noise levels would return to ambient levels. Therefore, the noise impacts from construction activities would be considered negligible. The operation of the AFRC would be similar to existing noise levels (i.e., roads and commercial businesses) and would account for minimal increases to noise levels locally or regionally.

4.5.2.4 No Action alternative

Implementation of the No Action alternative would not increase ambient noise levels in the region.

4.6 Soils

4.6.1 Affected Environment

The soils at the Preferred Site consist of 6 acres of Laredo-Urban land complex with 0 to 3 percent slopes and 5 acres of Olmito-Urban land complex with 0 to 1 percent slopes (Figure 4-2). The profile of Laredo-Urban land complex typically has 0 to 18 inches of silt loam and 18 to 72 inches of silty clay loam. The profile of Olmito-Urban land complex typically has 0 to 63 inches of silty clay. According to the Natural Resources Conservation Service (NRCS), neither of these soils is considered prime farmland soil (NRCS 2008). The Preferred Site is currently cleared and apparently was previously developed, as evident by portions of concrete slabs remaining on the Preferred Site.

The soils at Alternative Site 16 consist of Grulla clay with 1 to 5 percent slopes, Laredo silty clay loam with 0 to 1 percent slopes, an Olmito silty clay. The Olmito and Laredo soils are considered prime farmlands by NRCS. These soils are currently used for agricultural production within the site boundaries. Alternative Site 10 is comprised of Chargo silty clay and Laredo silty clay loam with 0 to 1 percent slope. The Chargo silty clay is not considered a prime farmland.

4.6.2 Environmental Consequences

4.6.2.1 Proposed Action

The Proposed Action would impact approximately 6 acres of Laredo-Urban land complex and 5 acres of Olmito-Urban land complex but it would be considered a negligible impact since these are not considered to be prime farmlands and they are regionally and locally abundant. BMPs to prevent soil erosion would be implemented to prevent soil migration off-site due to wind or rain activity. A Texas Pollutant Discharge Elimination System (TPDES) permit for development would be required because the site is greater than 1 acre. The TPDES permit would address post-construction stormwater retention and control measures as well. Additionally, a SWPPP would be prepared as part of the Notice of Intent for the TPDES.

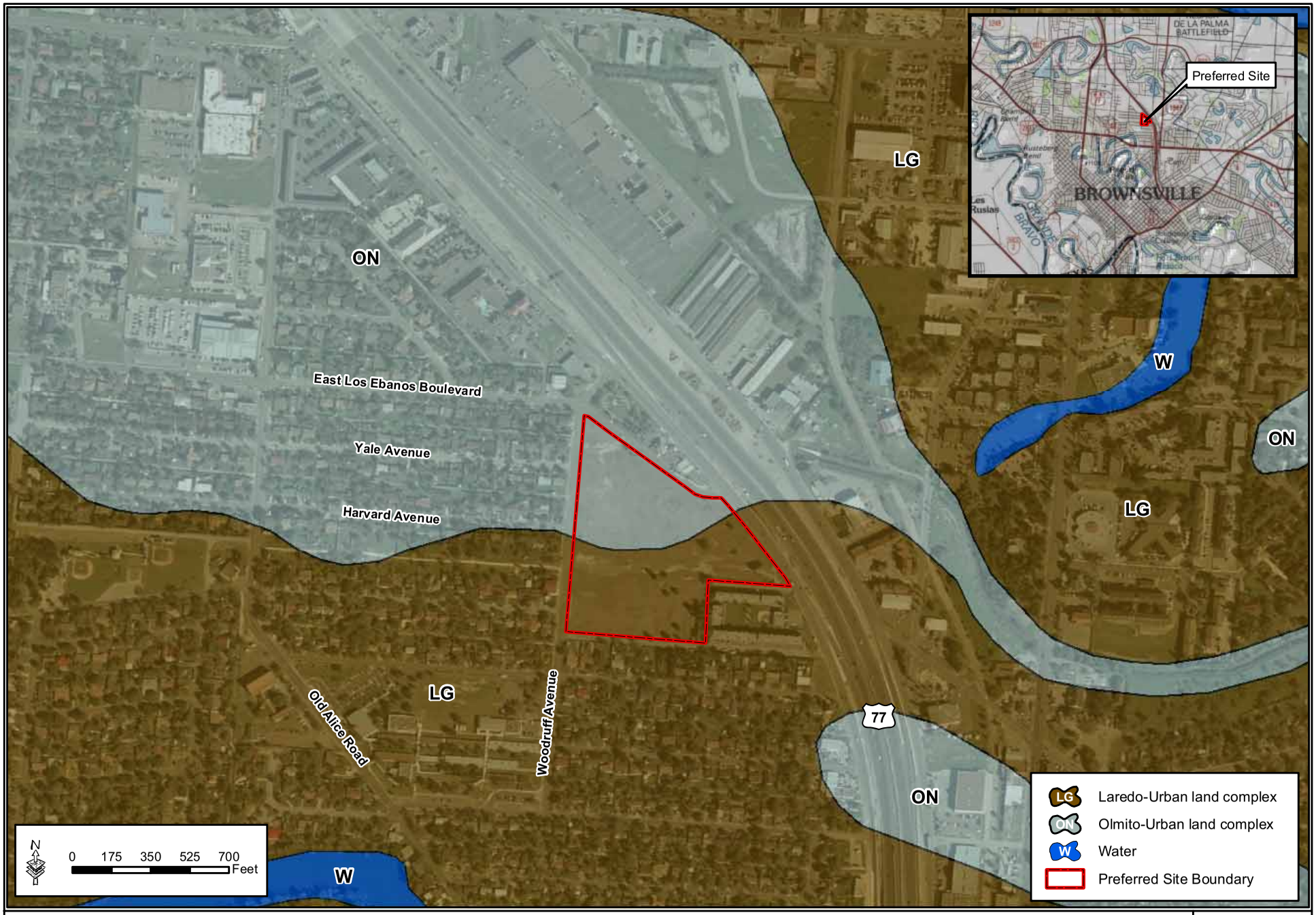

Figure 4-2: Preferred Site Soils Map

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4.6.2.2 Alternative Site 16

Alternative Site 16 is currently cultivated for agricultural production. Alternative Site 16 could impact approximately 1 acre of Grulla clay with 1 to 5 percent slopes, 16 acres of Laredo silty clay loam with 0 to 1 percent slopes, and 10 acres of Olmito silty clay. Laredo silty clay loam with 0 to 1 percent slopes and Olmito silty clay soils are considered prime farmlands by NRCS. Although prime farmlands are located on Alternative Site 16, if the property would be acquired by DoD, no Farmland Conversion Impact Rating Form (Form AD-1006) or consultation with the local NRCS office would be required. Therefore, because of the exempt status of DoD in regards to prime farmland impacts and because of the local and regional abundance of the soils, minimal impacts would be expected if this site were chosen.

4.6.2.3 Alternative Site 10

Alternative Site 10 is currently a cleared field with no improvements or structures. Alternative Site 10 would impact approximately 3 acres of Chargo silty clay, and 12 acres of Laredo silty clay loam with 0 to 1 percent slopes. Laredo silty clay loam with 0 to 1 percent slopes is considered prime farmland by NRCS; however, if acquired by DoD no Form AD-1006 would be completed nor would consultation with the local NRCS be required. Minimal impacts would occur to soils locally or regionally if this site were chosen.

4.6.2.4 No Action alternative

Under the No Action alternative, there would be no conversion of prime farmland soils, since no new AFRC would be constructed.

4.7 Water Resources

4.7.1 Affected Environment

4.7.1.1 Surface Water

All three sites are located within the South Laguna Madre watershed (United States Geological Survey [USGS] Cataloging Unit 12110208). Surface waters local to the Preferred and alternative sites include drainage ditches, the Rio Grande River, Lakewood and Brownsville Lakes, and various resacas (Figure 4-3). Resacas are unnamed remnant oxbow perennial or intermittent lakes. Surface water from the Rio Grande is the primary source of potable water serving the City of Brownsville. Water from the Rio Grande is pumped into two large reservoirs and then to one of two water treatment facilities (Brownsville Public Utilities Board [BPUB] 2008). The Preferred and alternative AFRC sites are located within the City of Brownsville and would utilize treated water from these public sources.

4.7.1.2 Hydrogeology/Groundwater

The Gulf Coast Aquifer, underlying much of the East Texas Coast region, supplies potable water for part or all of 54 eastern Texas counties. The aquifer consists of sand, gravel, clay, and silt, and has a maximum thickness of 1,300 feet. Freshwater saturated thickness averages approximately 1,000 feet. Groundwater quality in the aquifer from the San Antonio River Basin northeastward to Louisiana is generally good in the shallower portions, containing less than 500 milligrams per liter of dissolved solids to depths of 3,200 feet. From the San Antonio River Basin southwestward to Mexico, water quality deterioration is exhibited by increased chloride concentration and saltwater encroachment along the coast. Here, total dissolved solids (TDS) can reach 1,000 to 10,000 milligrams per liter. Little of this groundwater is suitable for prolonged irrigation due to elevated salinity and/or alkalinity levels. In some areas, especially near the coast, excess groundwater pumpage has caused subsidence of the groundwater table resulting in an influx of saltwater from the coastline. To alleviate the consequences of over pumping and reduce potential saline contamination of groundwater, more surface water is being

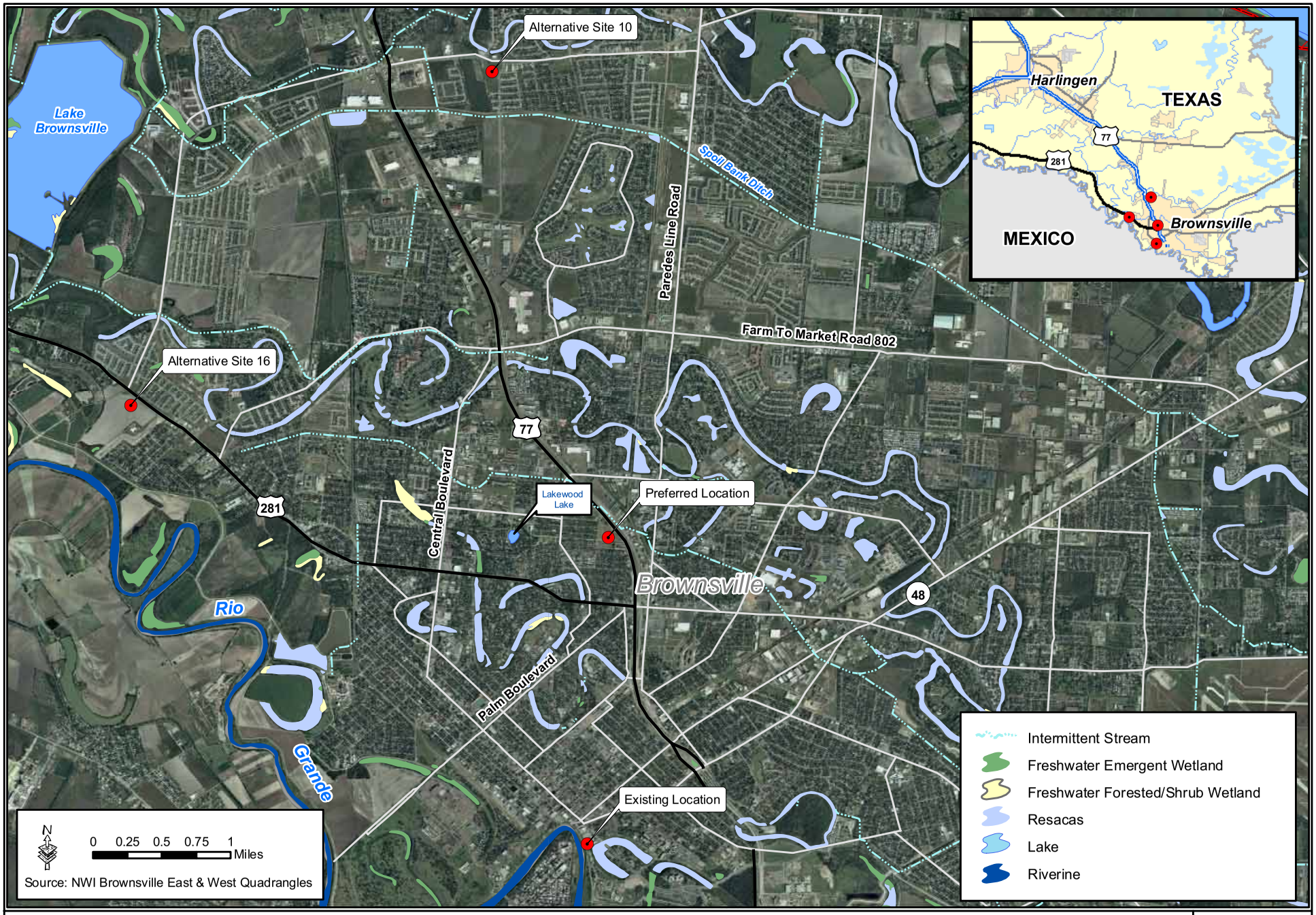

Figure 4-3: Surface Waters in the Vicinity of the Existing, Preferred and Alternative Site Locations

GSRC

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utilized to meet residential and municipal water demands. As a result, stabilization, and in some cases, improvement of groundwater quality has occurred (Texas Water Development Board [TWDB] 2007).

4.7.1.3 Floodplain

EO 11988 (Floodplain Management) directs Federal agencies to avoid developments within floodplains. Floodplains are defined as lands within the 100-year floodplain that have a 1 percent chance of becoming inundated by peak flows during any given year. According to Federal Emergency Management Agency (FEMA) flood map panel numbers: 4801030010B (Preferred Site), 4801010325B (Alternative Site #16), and 4801030005B and 48010103525B (Alternative Site #10), neither the Preferred Site or two alternative sites are located within the 100-year floodplain.

4.7.2 Environmental Consequences

4.7.2.1 Proposed Action

4.7.2.1.1 Surface Water

The Preferred AFRC Site is a previously disturbed 11-acre parcel located within the South Laguna Madre watershed. No streams or perennial surface waters are located within the boundary of the Preferred Site. Lakewood Lake is situated approximately 0.5 mile west of the site. Several resacas also exist within 1 mile of the Preferred Site (see Figure 4-3). No waters in the immediate vicinity of the Preferred AFRC site have state-approved designated uses, and none are listed on the state Clean Water Act (CWA) Section 303 (d) impaired waters list (Texas Commission on Environmental Quality [TCEQ] 2006).

Texas requires the completion of a TPDES permit for construction site erosion control, which is issued by the TCEQ, prior to initiation of construction. Through the permitting process, the Army would develop methods to minimize erosion and control stormwater runoff both during and after construction by utilizing BMPs and meeting performance standards established by the TCEQ. The Army or its contractor(s) would develop a site-specific SWPPP and Erosion Control Plan describing the BMPs that would be used on-site for erosion control. Negligible impacts to surface waters are expected as a result of the implementation of this alternative.

4.7.2.1.2 Groundwater

The new facilities would increase the amount of impervious surfaces within the South Laguna Madre Watershed. Impervious surfaces reduce the amount of rainwater infiltration and percolation, which is the primary source of groundwater recharge local to the Preferred Site. Impervious surfaces increase the flow of migrating rainwater, and sheet and rill erosion of adjacent exposed soils can occur. In addition, streambed and bank scouring and erosion are often associated with accelerated flows from impervious surfaces. The new facility designs would incorporate storm water control features preventing the degradation of the water quality of the surface waters on the Preferred Site. Incorporation of post-construction storm water controls within base-wide facilities and operations would minimize long-term impacts to surface waters and allow for groundwater recharge. Therefore, negligible impacts to groundwater resources would occur as a result of an increase of impervious surfaces under the Proposed Action.

4.7.2.1.3 Floodplains

Because the Preferred Site is not within the 100-year floodplain, construction and operation of the proposed AFRC at the Preferred Site would be in compliance with EO 11988.

4.7.2.2 Alternative Site 16

4.7.2.2.1 Surface Water

Alternative Site 16 is in the same watershed as the Preferred Site. Nearby water resources include: Lakewood Lake 2.5 miles to the east, Brownsville Lake 1.2 miles to the northwest, and the Rio Grande 1 mile to the south. Several resacas also exist within 1 mile of Alternative Site 16 (see Figure 4-3). No water resources in the immediate vicinity of Alternative Site 16 have state-approved designated uses, and none are listed on the state CWA Section 303 (d) impaired waters list (TCEQ 2006). Similar to the Proposed Action, a TPDES permit would be required prior to construction for site erosion control if this site were chosen. Therefore, negligible impacts to surface water resources would occur as a result of the construction of facilities at Alternative Site 16.

4.7.2.2.2 Groundwater

Because Alternative Site 16 is in the same watershed as the Preferred Site, impervious surfaces resulting from the implementation of the Alternative Action are anticipated to have the same effect on groundwater resources as the Preferred Alternative.

4.7.2.2.3 Floodplains

Because Alternative Site 16 is not within the 100-year floodplain, construction and operation of the proposed AFRC at Alternative Site 16 would be in compliance with EO 11988.

4.7.2.3 Alternative Site 10

4.7.2.3.1 Surface Water

Alternative Site 10 is in the same watershed as the Preferred Site. Water features local to Alternative Site 10 include: Lakewood Lake 3.2 miles to the south, Brownsville Lake 2.3 miles to the west, unnamed resacas, and the Rio Grande 4.1 miles to the south. No waters in the immediate vicinity of Alternative Site 10 have state-approved designated uses, and none are listed on the state CWA Section 303 (d) impaired waters list (TCEQ 2006). Similar to the Proposed Action, a TPDES permit would be required prior to construction for site erosion control if this site were chosen. Therefore, negligible impacts to surface water resources would occur as a result of the construction of facilities at Alternative Site 10.

4.7.2.3.2 Groundwater

Because Alternative Site 10 is in the same watershed as the Preferred Site, impervious surfaces resulting from the implementation of the Alternative Action are anticipated to have the same effect on groundwater resources as the Preferred Alternative.

4.7.2.3.3 Floodplains

Because Alternative Site 10 is not within the 100-year floodplain, construction and operation of the proposed AFRC at Alternative Site 10 would be in compliance with EO 11988.

4.7.2.4 No Action alternative

Under the No Action alternative, no new development would occur. Baseline conditions for surface and groundwater, as described above, would remain unchanged.

4.8 Biological Resources

4.8.1 Affected Environment

4.8.1.1 Vegetation

The Texas Parks and Wildlife Department's (TPWD) report entitled *The Vegetation Types of Texas* indicates the Preferred Site is located within the South Texas Plains Area. Vegetation

typical of South Texas Plains includes: mesquite-blackrush brush, mesquite-granjeno parks and woods, mesquite-live oak-bluewood parks, and live oaks parks and woods (TPWD 1984). Parks are defined here as areas dominated by woody plants equal to or greater than nine feet tall, growing in clusters, or as scattered individuals within continuous grass or forbs (TPWD 1984).

Surveys of the Preferred Site and alternative sites were conducted in January 2009. The Preferred Site is located on undeveloped land with dominant vegetation consisting of dallisgrass (*Paspalum dilatatum*), Johnsongrass, Bermuda grass, crabgrass (*Digitaria* spp.), goose grass (*Eleusine indica*), and nutsedge (*Cyperus* spp.). Other herbaceous species observed at the Preferred Site included Queen Ann's lace (*Daucus carota*) and clover (*Trifolium* spp.). A few small Texas ebony (*Ebenopsis ebano*), acacia (*Acacia* spp.), Mexican ash (*Fraxinus berlandieriana*), Texas palm (*Sabal palmetto*), retama (*Parkinsonia aculeate*) and honey mesquite trees are also scattered throughout the site. Alternative Site 16 is currently used for agricultural production (corn crop). The corn crop had recently been harvested, and the field had been tilled prior to the site visit (see Photograph 4-2). Alternative Site 10 is a mowed pasture (see Photograph 4-3). The predominant vegetation present at Alternative Site 10 includes Bermuda grass, Bahia grass (*Paspalum notatum*), and some honey mesquite trees are scattered throughout the site.

4.8.1.2 Wildlife

Species common in the area include the Virginia opossum (*Didelphis virginiana*), eastern cottontail rabbit (*Sylvialagus floridanus*), white-footed mouse (*Peromyscus leucopus*), northern pygmy mouse (*Baiomys taylori*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and white-tailed deer (*Odocoileus virginianus*) (USACE 1995). Avian species in the area include game birds such as the mourning dove (*Zenaida macroura*), white-winged dove (*Zenaida asiatica*), and bobwhite quail (*Colinus virginianus*). Numerous species of migratory song birds and hummingbirds pass through this area while on migration, including: the common nighthawk (*Chordeiles minor)*, killdeer (*Charadrius vociferus*), house sparrow (*Passer domesticus*), crows (*Corvus* sp.), northern mockingbird (*Mimus polyglottos*), and common grackles (*Quiscalus quiscula*) (USACE 1995). Reptiles and amphibians include several species of snakes, toads, frogs, turtles and lizards. Examples of reptiles and amphibians that may exist in the area are the ornate box turtle (*Terrapene ornata ornata*), Texas spiny lizard (*Sceloporus olivaceus*), ground skink (*Scincella lateralis*), Gulf Coast ribbon snake (*Thamnophis proximus*), and the rough green snake (*Opheodrys aestivus*) (USACE 1995).

Only two species of wildlife were observed in January 2009 during the survey of the project site, northern mockingbirds and Couch's kingbirds (*Tyrannus couchii*).

4.8.1.3 Sensitive Species

4.8.1.3.1 Federal

The USFWS is the primary agency responsible for implementing the Endangered Species Act (ESA), and is responsible for birds and other terrestrial and freshwater species. The USFWS has identified species that are listed as threatened or endangered, as well as candidates for listing as a result of identified threats to their continued existence. Although not protected by the ESA, candidate species may be protected under other Federal or state laws. Ten Federally endangered and three Federally threatened species inhabit Cameron County, Texas. However, as indicated in Table 4-4, none of these species are known or expected to occur within the Preferred Site (USFWS 2009). No Critical Habitat has been designated for these species within Cameron County. No suitable habitat for any of these species was observed on or near the Preferred Site. A concurrence letter was submitted to USFWS stipulating that no adverse

impacts would occur to Federally protected species was submitted on February 13, 2009. A response letter from USFWS concurring with this determination was received March 5, 2009 (Appendix B).

Table 4-4. Federally Listed Species Potentially Occurring Within Cameron County, Texas

Common/Scientific Name	Federal Status	Habitat	Potential to occur within Preferred Site
BIRDS			
Brown pelican (*Pelecans occidentalis*)	Endangered	Small, isolated coastal islands that are safe from predators such as raccoons and coyotes; nest on mud banks and spoil islands covered with woody vegetation.	No – no suitable habitat and nesting sites at or near the Preferred Site.
Piping plover (*Charadrius melodus*)	Threatened	In Texas, primarily on intertidal beaches with sand and/or mud flats with no or very sparse vegetation.	No – no suitable habitat and nesting sites at or near the Preferred Site.
Northern aplomado falcon (*Falco femoralis septentrionalis*)	Endangered	Inhabit areas of open grassland, savanna, and shrub-steppe from tropical lowlands up to 12,000 feet.	No – not likely due to lack of habitat and nesting sites.
REPTILES			
Green sea turtle (*Chelonia mydas*)	Threatened	Warm tropical, shallow coastal waters.	No – no coastal waters at or near the Preferred Site.
Hawksbill sea turtle (*Eretmochelys imbricata*)	Endangered	The most tropical of all sea turtles; found near coral reefs and rocky outcroppings in tropical, shallow coastal waters.	No – no coastal waters at or near the Preferred Site.
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered	Warm tropical, shallow coastal waters with sandy or muddy bottoms rich in crustaceans.	No – no coastal waters at or near the Preferred Site.
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Highly oceanic, utilize coastal waters only during breeding season.	No – no coastal waters at or near the Preferred Site.
Loggerhead sea turtle (*Caretta caretta*)	Threatened	Coastal tropical and subtropical waters, ventures into temperate waters to boundaries of warm currents, but prefers coastal bays, also found in coastal streams, creeks, and open ocean.	No – no coastal waters at or near the Preferred Site.
MAMMALS			
Gulf Coast jaguarundi (*Herpailurus (=Felis) yogouaroundi cacomitli*)	Endangered	Dense, thorny scrub, especially near water.	No – not likely due to the lack of habitat at or near the Preferred Site.
Ocelot (*Leopardus (=Felis) pardalis*)	Endangered	Dense, thorny shrub lands of the Lower Rio Grande Valley and Rio Grande Plains. Deep, fertile clay or loamy soils are generally needed to produce suitable habitat.	No – not likely due to the lack of habitat at or near the Preferred Site.
West Indian manatee (*Trichechus manatus*)	Endangered	Rivers, estuaries, and coastal areas of the southeastern US coast along Central America and the West Indies to the northern coastline of South America.	No – no riverine, estuarine, or coastal waters at or near the Preferred Site.
PLANTS			
South Texas ambrosia (*Ambrosia cheiranthifolia*)	Endangered	Open grasslands or savannas on soils varying from clay loams to sandy loams.	No – not likely due to the lack of appropriate soils at Preferred Site.
Texas ayenia (*Ayenia limitaris*)	Endangered	Found on terraces and floodplains in dense, relatively moist, subtropical riparian woodlands, with an overall canopy cover of about 95%.	No – not likely due the lack of habitat at or near the Preferred Site.

Source: USFWS 2009.

4.8.1.3.2 State

The TPWD maintains the list of Rare, Threatened, and Endangered Species in Texas. This list includes fauna whose occurrence in Texas is or may be in jeopardy, or with known or perceived threats or population declines (TPWD 2009). These species are not necessarily the same as those protected by the Federal government under the ESA. Of the 82 rare, threatened, and

endangered species known to occur in Cameron County, three have the potential to occur within the project area (Table 4-5). However, none of these species were observed during the site survey. Additionally, due to the high levels of disturbance at and near the Preferred Site, it is very unlikely that any of these species would occur. A concurrence letter stipulating that negligible impacts to TPWD protected species was submitted to TPWD on February 13, 2009. A response letter concurring with this determination was received March 19, 2009 (Appendix B).

Table 4-5. State Listed Species Potentially Occurring Within Project Area in Cameron County, Texas

Common/Scientific Name	State Status	Habitat	Potential to occur within Preferred Site
BIRDS			
Eskimo curlew (*Numenius borealis*)	Endangered	Grasslands, pastures, and plowed fields.	Yes – potential to occur in grassland within Preferred Site, but very unlikely due to disturbed nature of site.
Texas Botteri's sparrow (*Aimophila botterii texana*)	Threatened	Grasslands and short-grass plains with scattered bushes or shrubs, sagebrush, mesquite, or yuccas.	Yes – potential to occur in vegetation in or near Preferred Site, but very unlikely due to disturbed nature of site.
REPTILES			
White-lipped frog (*Leptodactylus fragilis*)	Threatened	Grasslands, cultivated fields, roadside ditches; often hides under rocks or in burrows under clumps of grass.	Yes – could potentially utilize vegetation, ditches, and concrete debris at Preferred Site, but very unlikely due to disturbed nature of site.

Source: TPWD 2009.

4.8.1.4 Wetlands

Section 404 of the CWA of 1977 (PL 95-217) authorizes the Secretary of the Army, acting through the USACE, to issue permits for the discharge of dredged or fill material into Waters of the U.S., including wetlands. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Environmental Laboratory 1987). During biological surveys conducted on the Preferred Site on January 14, 2009, two small depressional areas were observed. Both of these areas contained hydrophytic vegetation; however, no hydrological indicators were present and soil samples taken from the areas did not contain evidence of hydric soils. Although the alternative sites were not traversed, through aerial photography interpretation and visual observation from the boundaries of the sites, no potential wetlands or waters of the U.S. are believed to occur within either of these sites.

4.8.2 Environmental Consequences

4.8.2.1 Proposed Action

The implementation of the Proposed Action would have permanent, but minimal, impacts on biological resources. Because the site consists of disturbed grasslands, there would be insignificant direct impacts on natural vegetation communities. Negligible impacts on wildlife populations would be expected. There is no suitable habitat to support Federally threatened or

endangered species at the Preferred Site; therefore, there would be no impacts on Federally-listed species. Three state listed species have the potential to be encountered within the project area; however, it is highly unlikely that any of these species occur at the Preferred Site due to the disturbed nature of the project area and the surrounding development. There would be no impacts to wetlands because no wetlands exist on the Preferred Site.

4.8.2.2 Alternative Site 16

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action. However, no field surveys were conducted at this site, so accurate statements regarding the presence/absence of wildlife or protected species cannot be made at the present time. If Alternative Site 16 is ultimately selected, supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.8.2.3 Alternative Site 10

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action. However, no field surveys were conducted at this site, so accurate statements regarding the presence/absence of wildlife or protected species cannot be made at the present time. If Alternative Site 10 is ultimately selected, supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.8.2.4 No Action alternative

Implementation of the No Action alternative would allow the sites to remain in the current conditions, at least for the short-term, and there would be no direct impacts to vegetation, wildlife, sensitive species, or wetlands.

4.9 Cultural Resources

4.9.1 Affected Environment

4.9.1.1 Cultural Overview

The Environmental Company, Inc. (TEC) performed a Phase I Cultural Resources Survey of the Preferred Site on January 14, 2009. Prior to the field investigation, an archaeological assessment was conducted of the Preferred Site using the Texas Archaeological Site Atlas (TASA). The TASA indicated that several sites have been recorded in the general area, mostly located south along the Rio Grande near the site of historic Fort Brown. These sites include an early 20th century irrigation canal and pump station (41CF182), prehistoric artifact scatters (41CF45m 41CF105, 41CF183), prehistoric open camps (41CF186), historic artifact scatters (41CF90, 41CF148, 41CF150, 41CF154, 41CF156, 41CF178), the remains of farmsteads and ranches (41CF185), historic dumps (41CF204), historic buildings (41CF94), remains of historic Fort Brown (41CF962), a historic cistern (41CF126), and the remains of a historic steamboat (41CF177). No archaeological surveys have been previously conducted on the project site and no previously recorded cultural resources are present on the property. An examination of aerial photographs through the U.S. Geological Survey prior to the commencement of fieldwork indicated that a large building complex was present at the site in 1970 (TEC 2009).

4.9.2 Environmental Consequences

4.9.2.1 Proposed Action

During TEC's investigation of the Preferred Site, only modern cultural material, including concrete foundations and slabs, and asphalt paths and pads were observed. The site has a high degree of disturbance. Disturbances include a small shallow depression in the northeast

portion of the property; asphalt drives and a pad in the northern, southeastern, and southwestern portions of the property; and the remains of concrete foundations from a large building complex in the western portion of the property. In addition, a two-track road extends across the southern end of the property and a trash pile of concrete and tree stump debris is located in the southwestern portion of the property. A reconnaissance was performed of the view shed of the Preferred Site. No structures or buildings that meet the 50 year age minimum for historic structures were observed near the Preferred Site.

Cultural Resources are defined as historic properties as defined by the National Historic Preservation Act, cultural items as defined by the Native American Graves and Repatriation Act (NAGPRA), archeological resources as defined by Archaeological Resources Protection Act, sacred sites as defined in EO 13007 to which access is afforded under American Indian Religious Freedom Act, and collections and associated records as defined in 36 CFR 79. Native American tribes claiming a cultural affinity with the project area were identified using the Native American Consultation Database, the Indian Lands Cessions 1784-1894 located online at the National Park Service's website, records housed at the USACE and the tribes listed in the U.S. Army Reserve Integrated Cultural Resources Management Plan, 90th RRC, Texas (Crane et al. 2003). As a result, consultation letters were sent to the Apache Tribe of Oklahoma, the Comanche Nation, and the Tonkawa Tribe of Indians of Oklahoma. To date no tribes have expressed interest in the proposed project and no traditional cultural properties, resource procurement areas, tribal resources, tribal rights, or sacred sites were identified during the recent investigations and past tribal consultations. Due to the lack of any identified properties, extensive site disturbance, and prior development of the Preferred Site, it is highly unlikely that any buried deposits are present within the Preferred Site that would be considered significant to Native American or other traditional communities.

A letter was also submitted to the Texas Historical Commission (THC) on February 13, 2009 requesting THC's concurrence of the Army's determination of no historic properties affected by the proposed project as per 36CFR800.4(d)(1). A letter of concurrence was received on 30 March 2009.

Prior to construction, the Army would brief the construction crews on procedures to follow in case of an unexpected discovery of cultural resources. If any cultural resources are uncovered during construction, the Army and THC would be notified, and all construction activities would stop until a qualified archaeologist could assess the significance of the cultural remains. If human remains are encountered, the local coroner and law enforcement agency would be contacted. If the remains are of Native American origin, compliance with the NAGPRA regulations would be required.

4.9.2.2 Alternative Site 16

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action. However, cultural resources field surveys were not conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If Alternative Site 16 is ultimately selected, cultural resources surveys and supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.9.2.3 Alternative Site 10

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action. However, cultural resources field

surveys were not conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If Alternative Site 10 is ultimately selected, cultural resources surveys and supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.9.2.4 No Action alternative

No adverse impacts on historical or cultural resources are anticipated from the implementation of the No Action alternative, since no construction would occur.

4.10 Socioeconomic Resources

4.10.1 Affected Environment

4.10.1.1 Population

Cameron County is considered the Region of Influence (ROI) for the Proposed Action relative to socioeconomic effects. Cameron County is part of the Brownsville-Harlingen, Texas Metropolitan Statistical Area (MSA). The 2005-2007 population for the ROI, the State of Texas, and the Nation is presented in Table 4-6. As can be seen, the racial mix of the ROI consists predominantly of Caucasians and persons of some other race. The remainder is divided among African Americans, Asians, persons claiming to be two or more races, Native Americans, and Native Hawaiians or other Pacific Islanders. Cameron County has a significant portion of the population that claims Hispanic or Latino origins (U.S. Census Bureau 2007a).

Table 4-6. Population and Race

Geographic Region	Total Population	Race							
		White (%)	African American (%)	Native American (%)	Asian (%)	Native Hawaiian or other Pacific Islander (%)	Some Other Race (%)	Two or more Races (%)	Hispanic or Latino Origin of any Race (%)
United States	298,757,310	74.1	12.4	0.8	4.3	0.1	6.2	2.1	14.7
Texas	23,385,340	70.6	11.5	0.5	3.3	0.1	12.3	1.8	35.5
Cameron County	379,874	85.6	0.5	0.2	0.6	0.0	12.0	1.1	86

Sources: U.S. Census Bureau 2007a

4.10.1.2 Income and Employment

As shown in Table 4-7, the per capita personal income (PCPI) across the ROI was 47 percent lower than the PCPI of the State of Texas and 49 percent lower than the Nation. Between 1996 and 2006 the average growth rate for the PCPI for Cameron County was 4.0 percent, which was slower than the PCPI of the state and the Nation.

Table 4-7. 2006 Per Capita Personal Income (PCPI)

	Per Capita Personal Income	Rank	Percent State Average	Percent National Average	Average Annual Growth Rate 1996-2006 (%)
Nation (Average)	$36,714	NA	NA	100	4.3
Texas (Average)	$35,166	21	100	96	4.7
Cameron County	$18,559	243	53	51	4.0

NA=Not Applicable
Sources: Bureau of Economic Analysis (BEA) 2006a

Total personal income (TPI) includes net earnings by place of residence; dividends, interest, and rent; and personal current transfer receipts received by the residents within the ROI. Table 4-8 shows the TPI for the ROI and for the State of Texas. In 2006 the TPI for Cameron County was $3.9 billion and ranked 19th in the state (BEA 2006a). The 1996-2006 average annual growth rate of the TPI was 6.1 percent for Cameron County. Cameron County had a higher TPI average annual growth rate than the Nation (5.4 percent) (BEA 2006a).

Table 4-8. Total Personal Income

Geographic Region	Total Personal Income		2006 State Rank	Percent State Total	Average Annual Growth Rate 1996-2006 (%)
	1996	2006			
Texas	$427,810,267,000	$823,159,415,000	NA	100	6.8
Cameron County	$3,908,490,000	$7,047,061,000	19	0.9	6.1

NA=Not Applicable
Source: BEA 2006a

The total number of jobs in the ROI was over 162,500 for 2006 (Table 4-9). The number of jobs in Cameron County is up significantly, which had a higher percent growth than in the state of Texas. The largest employer classification in 2006 in Cameron County was health care and social assistance (30,221 jobs), followed by government and government enterprises (28,771 jobs) and retail trade (20,147 jobs). The unemployment rate for Cameron County was equal to or higher than the unemployment rate for Texas in 2001 and 2006.

Table 4-9. Total Number of Jobs and Employment

Geographic Area	Total Number of Jobs			Unemployment Rate	
	2001	2006	% Change	2001 (%)	2006 (%)
Texas	12,356,260	13,514,130	9.37	7.9	4.9
Cameron County	145,046	162,532	12.06	7.9	6.6

Source: BEA 2001and 2006b, Tracer 2001and 2006

In 2007, the percentage of all people in poverty in the ROI was 34 percent (Table 4-10). This percentage of people in the ROI living at or below poverty level is over two times as great as the percentage of people below the poverty level for the State of Texas (16.3 percent) and the Nation (13. percent). Median household income within the ROI is lower than the state and National household income.

Table 4-10. 2007 Poverty and Median Income by County

Geographic Location	Number in Poverty of All Ages	Percentage in Poverty	Median Income
Nation	38,052,247	13.0	$50,740
Texas	3,787,071	16.3	$47,563
Cameron County	131,122	34.3	$29,589

Source: U.S. Census Bureau 2007b

4.10.1.3 Housing

The total number of housing units was over 140,000 in the year 2005-2007 census estimates (Table 4-11). Approximately 68 percent of the housing units in Cameron County were owner-occupied and 18 percent of the housing units were vacant. Similarly, the owner-occupied houses for the state were estimated at 65.2 percent of all occupied houses and 12 percent vacant (U.S. Census Bureau 2007a).

Table 4-11. Housing Units in Year 2005-2007 Census Estimates

Location	Total Housing Units	Status		
		Occupied		Vacant
		Owner	Rented	
Texas	9,224,352	5,278,915	2,816,110	1,129,327
Cameron County	140,565	77,929	36,858	25,778

Source: U.S. Census Bureau 2007a

4.10.1.4 Environmental Justice

EO 12898 (*Environmental Justice*) requires all Federal agencies to identify and address disproportionately high and adverse effect of their programs, policies, and activities on minority and low-income populations. As indicated previously, although the majority of the population in the ROI claims to be Caucasian, 86 percent claim Hispanic origin and 0.5 percent claim to be African American in Cameron County (see Table 4-6). Additionally, 34 percent of the ROI population is considered to live below the poverty level (see Table 4-10). Consequently, there is a potential for the BRAC action to encounter environmental justice issues within the ROI.

4.10.1.5 Protection of Children

EO 13045 (*Protection of Children*) requires each Federal agency "to identify and assess environmental health risks and safety risks that may disproportionately affect children"; and "ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." In Cameron County, about 11 percent of the population is 5 years old or less and 34 percent are younger than 18 years

(U.S. Census Bureau 2007a). Potential protection of children issues arise when an action is near residential areas or schools.

4.10.2 Environmental Consequences

4.10.2.1 Proposed Action

The proposed establishment of the AFRC and the relocation of the units currently using the existing Brownsville USARC would not result in a gain of military or civilian personnel. The Proposed Action would not adversely affect local income, employment rates, or poverty levels. No displacements of residences or businesses would be required, and the construction area would be restricted to authorized personnel. There are residences near the Preferred Site; however, through the use of BMPs such as restricting access to authorized personnel, no effects on children would occur. Because there would be no displacement of residences or businesses and because no children will be impacted as a result of the Proposed Action or alternatives, the project would be in compliance with EO 12898 and EO 13045. Any materials or services purchased locally and any local hiring during construction would result in short-term negligible socioeconomic benefits. The Proposed Action would have no adverse effect on the socioeconomic conditions within the ROI. To further document the potential effects, a model of economic effects was run using the Economic Impact Forecast System (EIFS). As the project involves the purchase of land from private resources, some local tax revenues would be reduced from the purchase and utilization by the government, which is tax exempt. The estimated maximum reduction would be $3,392 per year in tax revenues. This loss would be offset by the exogenous influx of construction expenditures during the construction phase and the multiplier effect as indicated in the EIFS. The EIFS results indicated no net change in the long-term economy within the ROI. A copy of the EIFS results is presented in Appendix C.

4.10.2.2 Alternative Site 16

Since Alternative Site 16 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action.

4.10.2.3 Alternative Site 10

Since Alternative Site 10 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action.

4.10.2.4 No Action alternative

Under the No Action alternative, socioeconomic conditions would remain unchanged.

4.11 Transportation

4.11.1 Affected Environment

Numerous modes of transportation are available to serve the proposed AFRC, including air, bus and highway access. The Brownsville-South Padre Island International Airport is located approximately 5 miles southeast of the Preferred Site. It provides frequent daily service to Houston's George Bush Intercontinental Airport, which is 300 miles northeast of Brownsville, where connections to hundreds of domestic and international destinations can be made. Rio Grande International Railroad is a short-line freight railroad that has interchanges with Union Pacific Railroad and Burlington Northern Santa Fe Railroads (Brownsville and Rio Grande International Railroad 2009). Brownsville does not currently have a station for passenger rail service. However, Amtrak's Texas Eagle, which connects San Antonio with Chicago and Sunset Limited and connects New Orleans to Los Angeles, has stations in San Antonio, approximately

250 miles north of Brownsville. The Brownsville Urban System (BUS) is a mass transit system based in and serving Cameron County. BUS provides public transportation service throughout the City of Brownsville and the Los Ebanos bus route passes near the Preferred Site with a bus stop on Woodruff Avenue (City of Brownsville 2009).

4.11.1.1 Proposed Action

The Preferred Site is served by many state and local roads (Figure 4-4). It is located at the corner of Woodruff Avenue and Tulane Avenue. U.S. Highway 281 (Boca Chica Boulevard) is located approximately 1 mile south of the Preferred Site, and is a main east-west thoroughfare through Brownsville. The Preferred Site is located just east of U.S. 83, a main north-south thoroughfare connecting Brownsville to other parts of Texas, and is about 2 miles north of downtown Brownsville. State Highway (SH) 415 is located approximately 1.5 miles west of the Preferred Site and is a north-south thoroughfare through the City of Brownsville.

Average traffic volumes on U.S. 281 near the proposed AFRC site is approximately 21,000 vehicles per day. According to the Texas Department of Transportation (TxDOT) 2006 traffic data, an average of 65,000 vehicles per day utilizes U.S. 83 near the intersection with SH 281. SH 415 averages 25,000 vehicles per day (TxDOT 2007).

4.11.1.2 Alternative Site 16

Alternative Site 16 is located approximately 5 miles to the west of the Preferred Site. U.S. 281 is located adjacent to the northern boundary of Alternative Site 16, while Farm to Market Road (FM) 3248 is located to the west and FM 802 is located approximately 0.5 mile to the east. U.S. 281 near Alternative Site 16 has daily traffic volumes of 15,600 vehicles per day, while FM 3248 has daily traffic volumes of 11,500 vehicles per day. FM 802 near the intersection of U.S. 281 has daily traffic volumes of 9,300 vehicles per day (TxDOT 2007).

4.11.1.3 Alternative Site 10

FM 3248 is located just to the north of Alternative Site 10. U.S. 83 is located just to the west of Alternative Site 10 while FM 1847 is approximately 1.0 mile to the east of Alternative Site 10. U.S. 83 near Alternative Site 10, has daily traffic volumes of 71,000 vehicles per day, while FM 3248 has daily traffic volumes of 28,000 vehicles per day. FM 1847 has daily traffic volumes of 9,900 vehicles per day (TxDOT 2007).

4.11.2 Environmental Consequences

4.11.2.1 Proposed Action

Construction of the proposed AFRC would have no effect on regional air or mass transit service. Vehicle traffic at the Preferred Site would be increased by approximately 64 vehicles per day during the construction period, primarily along U.S. 281, U.S. 83 and SH 415. This increase in daily traffic volume would consist of four heavy duty delivery trucks and approximately 60 construction personnel passenger vehicles.

Operation of the proposed AFRC would also create occasional moderate increases on these same streets. Congestion would occur primarily along U.S. 281, U.S. 83 and SH 415. Based on the maximum amount of potential vehicles per day, approximately 200 additional vehicles would be expected to access the Preferred Site as a result of the implementation of the Proposed Action. This relatively low number of vehicles represents a 0.003 percent to 0.01 percent addition to the traffic volume on major local roads in this area. The majority of the increased traffic would primarily occur during the weekends, particularly when USAR units are conducting training activities. Therefore, construction and operation of the proposed AFRC would result in moderate adverse impacts on the traffic around the Preferred Site.

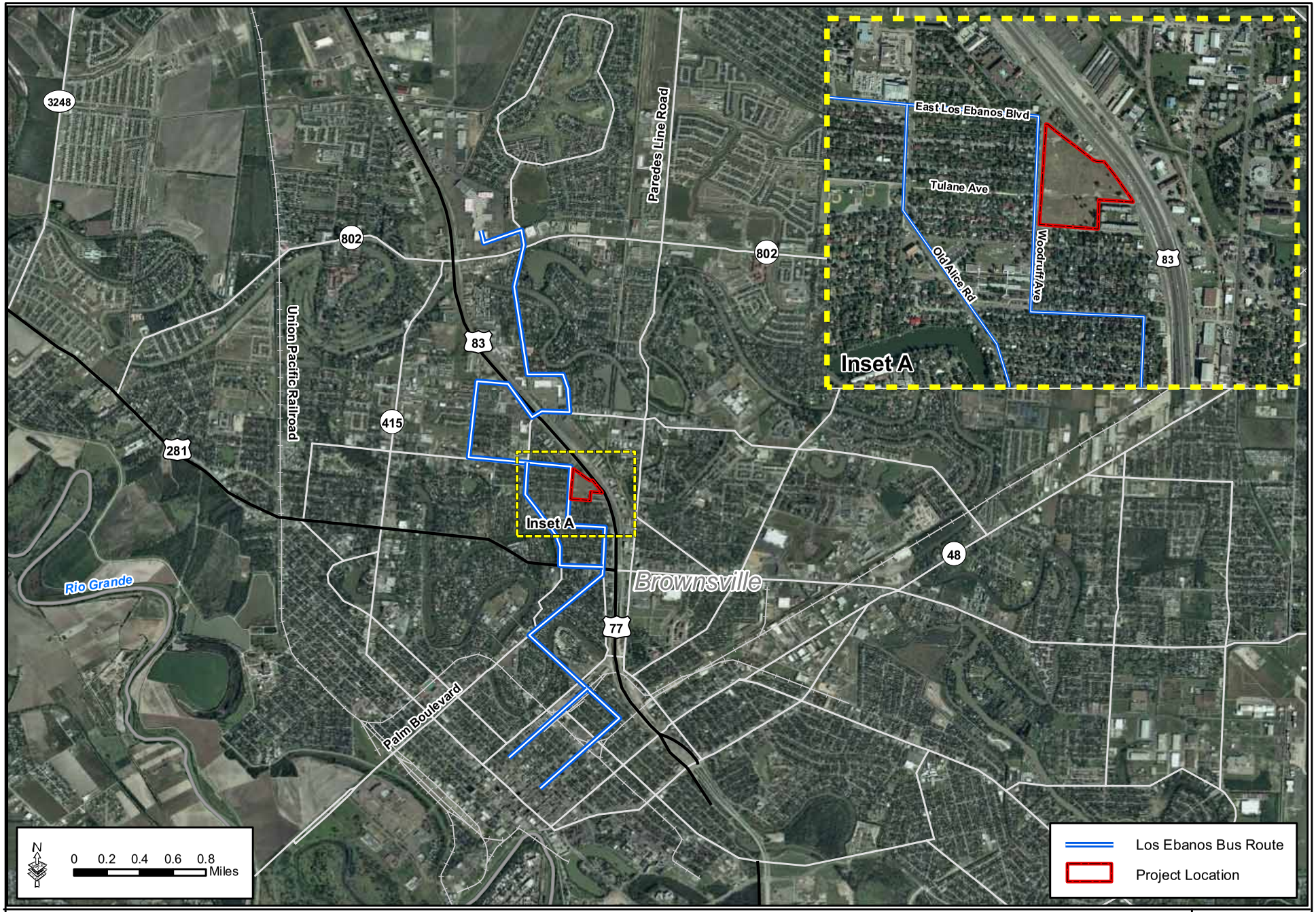

Figure 4-4: Transportation Map

GSRC

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4.11.2.2 Alternative Site 16

The construction and operation of the proposed AFRC at Alternative Site 16 would result in similar impacts as described above for the Proposed Action. Congestion would occur primarily along U.S. 281, FM 3248, and FM 802. Approximately 200 additional vehicles per day represent a 0.01 to 0.02 percent increase on major roads in the area. Therefore, construction and operation of the proposed AFRC would result in minimal adverse impacts on the traffic around Alternative Site 16.

4.11.2.3 Alternative Site 10

The construction and operation of the proposed AFRC at Alternative Site 10 would result in similar impacts as described above for the Proposed Action. Congestion would occur primarily along U.S. 83, FM 3248, and FM 1847. Approximately 200 additional vehicles per day represent a 0.002 to 0.02 percent increase on major roads in the area. Therefore, construction and operation of the proposed AFRC would result in minimal adverse impacts on the traffic around Alternative Site 10.

4.11.2.4 No Action alternative

Under the No Action alternative, there would be no effect on vehicle traffic at or around the proposed construction site of the Brownsville AFRC. Regional air and mass transit service would also be maintained at status quo.

4.12 Utilities

4.12.1 Affected Environment

4.12.1.1 Potable Water Supply

The area around the Preferred Site and the two alternative sites, receives their drinking water supply from the City of Brownsville. The City of Brownsville gets its water from the Rio Grande River and pumps it into a pair of water reservoirs which can hold about 129 million gallons of water. The Brownsville Public Utilities Board (BPUB) maintains two water treatment plants that have the capacity to provide 40 million gallons of treated water per day, which is well above the city' s current peak demand. The plant is currently operating at 52 percent capacity. Currently, a 16-inch water mainline is located immediately north of the Preferred Site and an 8-inch water line is located immediately south and west of the Preferred Site. A 16-inch water line runs immediately north of Alternative Site 16 in the existing subdivision across SH 281. For Alternative Site 10, 8-inch to 12-inch water lines are located immediately east of the property and 16-inch water pipes are located immediately north of the property across FM 3248 (BPUB 2009).

4.12.1.2 Wastewater System

The BPUB maintains a state of the art wastewater system through its two wastewater plants, the North Wastewater Treatment Plant on Robindale Road and the South Wastewater Treatment Plant on East Avenue. The two treatment plants treat a combined average of 11 million gallons per day (MGD). They have a design capacity to treat 22.8 MGD. Currently, an 8-inch wastewater gravity main line is accessible to the north, west and south portions of the Preferred Site. Also there are several sewer manholes near the northwest, south and west of the property. For Alternative Site 16, a 10-inch wastewater supply line runs immediately north of the property across U. S. 281 near the existing subdivision. Also sewer manholes can be found immediately east of the Alternative Site 16 property. For Alternative 10, 8-inch sewer lines are located to the east and north of the property. Sewer manholes can also be found near the property (BPUB 2009).

4.12.1.3 Stormwater System
A stormwater system, which is part of the city drainage system, is adjacent to the Preferred Site. Stormwater would drain to the natural drainage courses that are near the southern boundary of the property at Alternative Site 16. There appears to be no stormwater system in place at Alternative Site 10. The proposed AFRC would require a SWPPP for construction and post construction stormwater discharges. Plans for a stormwater system are not available at this time but they would be included in the SWPPP.

4.12.1.4 Electric and Gas
The City of Brownsville provides electricity in the region. The City of Brownsville is called a "Public Power" city because it owns and operates its own electric system. BPUB owns three power plants that produce power for Brownsville. Electrical lines are available to the north, west, south and east of the Preferred Site. Electrical lines are accessible from the north and east of Alternative Site 16 and from the north, east and south of Alternative Site 10. Texas Gas Service Company is the natural gas provider in the region. A gas line is located on the northwest corner of the Preferred Site. No gas infrastructure is located at Alternative Site 16 or Alternative Site 10 (BPUB 2009).

4.12.2 Environmental Consequences
4.12.2.1 Proposed Action
The construction of the proposed AFRC would have minimal effects on the regional potable water supply, wastewater treatment system and stormwater discharges. Construction crews would bring water on-site for their personnel, and portable latrines would collect sanitary waste. Since the site is greater than 1 acre, a TPDES permit for General Construction would be required prior to construction. This permit would require that a SWPPP and Notice of Intent be prepared and filed with the EPA through the TCEQ. The SWPPP would identify BMPs that are required to be implemented to control stormwater erosion and runoff from the site and sedimentation into downstream areas. Upon completion of the construction activities, all disturbed areas that are not going to be landscaped and routinely maintained should be reseeded with native vegetation.

Operation of the proposed AFRC would result in minor increases in demand on the city's drinking water supply and wastewater treatment system. However, as indicated above, there is sufficient capacity with both supply and treatment systems to accommodate the proposed construction and operation of the AFRC.

4.12.2.2 Alternative Site 16
Since Alternative Site 16 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action.

4.12.2.3 Alternative Site 10
Since Alternative Site 10 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action.

4.12.2.4 No Action alternative
Under the No Action alternative, construction of the AFRC would not occur; thus, no effects would occur to the installation's stormwater system or existing discharges. Furthermore, no additional demands, temporary or long-term, on Brownsville's water supply or wastewater treatment systems would occur under this alternative.

4.13 Hazardous and Toxic Substances

4.13.1 Affected Environment

4.13.1.1 Proposed Action

The Preferred Site is currently cleared but has been previously developed. A Coca Cola Bottling Plant was once located on the northwest portion of the property, a church called the Northside Baptist Church was located on the southwest portion of the property and a residence was located on the southeast portion. All of these buildings were demolished in 1995. There is some debris on site including portions of concrete slabs, old tires, wooden pallets and trash. The site is also covered with native and coastal Bermuda and Johnson grass with scattered, mesquite trees (USACE 2009).

An Environmental Condition of Property Report (ECP) (Appendix D) was prepared for the Preferred Site by the Terraine-Ensafe Joint Venture (TEJV) for the USACE in February 2009. According to the ECP, "there is one historic Recognized Environmental Condition, one Recognized Environmental Condition associated with petroleum hydrocarbons, and four business environmental risks revealed for the property." The term Recognized Environmental Condition is defined by ASTM E 1527-05 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The term historical Recognized Environmental Condition means an environmental condition which in the past would have been considered a Recognized Environmental Condition, but which is not currently considered a Recognized Environmental Condition. If a past release of a hazardous substance or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by a responsible regulatory agency, this condition shall be considered a historical Recognized Environmental Condition. A historical Recognized Environmental Condition is not a Recognized Environmental Condition (USACE 2009).

Coca Cola operated five underground storage tanks (USTs) on the site in three separate tank pits. Two USTs were removed from a single tank pit in August 1987. At the same time two new USTs were installed to replace the removed tanks. Shortly thereafter, a 36-inch diameter recovery well was installed in the tank pit to remove phase separated hydrocarbons (PSH). In June 1989 three USTs were removed from the remaining two pits at the site and recovery systems were installed in both tank pits. In April 1990, the two replacement USTs were removed. The Texas Commission on Environmental Quality (TCEQ) assigned Leaking Petroleum Storage Tank (LPST) ID number 91421 to the Coca Cola facility. In January 1993, PSH removal was reduced to hand bailing from one monitoring well (MW-10). Groundwater at the site was monitored on a regular (mostly semi-annually) basis from August 1987 to February 1994. Sampling included analyzing the groundwater for general chemistry and it was determined to be saline. This, in conjunction with a determination that neither surface water or drinking water wells were threatened, and no off-site migration had occurred led TCEQ to require that the only remediation required at the site would be removal of PSH. This was accomplished to the satisfaction of TCEQ and the site was granted closure in February 1995. Remediation and closure of an LPST on the property constitutes a historical Recognized Environmental Condition (USACE 2009).

Since 1995, TCEQ has implemented the Texas Risk Reduction Program (TRRP) and uses TRRP guidelines to provide closure for LPST sites. TEJV reviewed TCEQ files related to the Coca Cola Bottling Plant LPST site and compared them to current TRRP guidelines. A report entitled Contamination Assessment Report, dated November 13, 1987 indicates that soil borings and monitor wells were drilled and installed at the site. At least one soil sample collected from monitor wells MW-2, MW-10, and MW-11 exceeded current TRRP protective concentration levels (PCLs) for benzene. Based on this soil analytical data, TEJV considered that the site would not be eligible for closure under current TRRP standards (USACE 2009).

TEJV also reviewed a report entitled Report of Annual Groundwater Monitoring dated November 1993 in which groundwater analytical data from 1990 to August 1993 was summarized. This report was reviewed because it was referenced in a TCEQ memorandum recommending site closure in February 1995. Samples from eleven of the twelve monitor wells contained concentrations of benzene, ethylbenzene, toluene, and xylene (BTEX) that are less than current TRRP PCLs and, therefore, are eligible for closure. However, monitor well MW-10 contained PSH at a thickness of 0.01 inches, which is generally considered to be an amount acceptable to TCEQ. Although, groundwater samples meet current TRRP closure requirements, the presence of PSH in MW-10, represents a potential barrier to site closure (USACE 2009).

Soil sample data from the 1995 Coca Cola Bottling Plant LPST site closure are above current TRRP PCLs (precluding closure under current standards) and PSH on site groundwater represents a potential barrier to site closure under current TRRP standards. The historical soil data from the LPST site exceeding current TCEQ TRRP guidelines and the potential presence of PSH constitutes a possible Recognized Environmental Condition.

Based on the review of previous monitoring and remediation at the site, a limited Phase II subsurface investigation (Appendix E) was conducted, and 10 additional soil borings resulting in 20 soil samples were completed, along with three temporary groundwater monitoring wells, in the area previously investigated around the former USTs. The results of the Phase II investigation indicated that there is no longer any BTEX contamination in the soil or groundwater at the site exceeding current TRRP standards. Methyl Tert Butyl Ether (MBTE) level was found in one monitoring well exceeding current TCEQ Action Levels, but the MTBE level is not particularly high, and MTBE, a gasoline additive, is typically persistent in the environment. TCEQ Petroleum Storage Tanks Division personnel determined that since MTBE was not considered a target chemical of concern at the time the site was closed, the site would not be reopened based solely on the current detection of MTBE in the groundwater. Total Dissolved Solids in groundwater sampled from one of the monitoring wells were detected at levels which exceed TCEQ guidance levels.

The lack of PSH in the soil or groundwater at the site exceeding current TRRP standards means that the former USTs and prior contamination do not constitute a Recognized Environmental Condition, but instead, represent a historical Recognized Environmental Condition with no business environmental risk to the property.

TEJV observed an approximately 30 to 40 cubic yard soil pile of unknown origin on the south central portion of the property. According to the site contact, Vannie Cooks Trust property owner representative, Mr. Mike Brisnahan, no one has permission to store or dump soil on the property. Upon further observation of the soil pile no soil staining was noticed nor were any barrels, jugs, or bottles that could potentially contain toxic materials. This pile is not thought to be a concern.

Several brush piles located around the perimeter of the property contain automotive tires. A total of three discarded tires were observed in three separate piles (one in each pile). The discarded tires are considered a business environmental risk.

One concrete building foundation, approximately 40 feet square was observed on the south central portion of the property. Floor tile, linoleum, and black mastic were observed on the foundation. The potential presence of asbestos-containing floor tile, linoleum and/or mastic constitutes a business environmental risk.

One other finding of environmental concern was identified on the property. Historical topographic maps and aerial photographs indicate that a drainage canal was present on the property from at least 1936 until 1970. The canal connected a lake west of the property to the Resaca de la Palma east of the property. The canal was filled in after 1970, but before 1977. The origin of the fill material is unknown. The unknown origin of the drainage canal fill material constitutes a business environmental risk (USACE 2009) (See Appendix D for the full ECP Report).

4.13.1.2 Alternative Site 16

No surveys were conducted at this site; however, no obvious hazardous or toxic substances were noticed within or along the perimeter of the site during a boundary field visit. If this site is ultimately selected an ECP assessment would be required.

4.13.1.3 Alternative Site 10

No surveys were conducted at this site; however, no obvious hazardous or toxic substances were noticed within or along the perimeter of the site during a boundary field visit. If this site is ultimately selected an ECP assessment would be required.

4.13.2 Environmental Consequences

4.13.2.1 Proposed Action

The current ECP findings and the Phase II subsurface investigation indicate that no additional investigation is necessary and that the conditions described have resulted in a historic Recognized Environmental Condition with no business environmental risk associated with the Preferred Site.

Operation of the proposed AFRC at the Preferred Site would not involve the use of hazardous or toxic substances in quantities that would require permitting by state or Federal regulatory agencies. No fuel would be stored on the site. BMPs would be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. The construction crew will be notified of the potential dangers that MBTE could pose if groundwater is encountered and the crew members came into contact with groundwater. Once the AFRC is completed there would be no risk to human health and safety due to the MBTE-contaminated grounwater. To minimize potential impacts on surface waters from hazardous and regulated materials, all fuels, waste oils, and solvents would be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery would be completed following accepted industry guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although a major spill is unlikely to occur, any spill of reportable quantities would be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock, etc.) would be used to absorb and contain the spill.

All spills would be reported to the designated site environmental manager point of contact for the AFRC.

All equipment maintenance, laydown, and dispensing of fuel, oil, or any other such activities, would occur in areas identified for those purposes. The designated areas would be located in such a manner as to prevent any runoff from entering waters of the U.S, including wetlands. All used oil and solvents would be recycled if possible.

Solid waste receptacles would be maintained at the Preferred Site, and non-hazardous solid waste (trash and waste construction materials) would be collected and deposited in on-site receptacles. Waste materials and other discarded materials contained in these receptacles would be removed from the site as quickly as possible. Solid waste would be collected and disposed of properly.

As indicated previously, a SWPPP would be developed by the project contractor for the area affected during construction procedures. The SWPPP would include BMPs to control erosion and fugitive dust emissions, including the use of silt fencing and hay bales adjacent to open water, such as the canals, and dust suppression by watering haul roads and construction areas.

No potential adverse impacts due to the presence of hazardous or toxic substances would occur upon implementation of the Proposed Action

4.13.2.2 Alternative Site 16

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action. If Alternative Site 16 is ultimately selected, supplemental NEPA documentation and surveys would be required to fully assess the potential impacts relative to existing hazardous or toxic wastes.

4.13.2.3 Alternative Site 10

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action. If Alternative Site 10 is ultimately selected, supplemental NEPA documentation and surveys would be required to fully assess the potential impacts relative to existing hazardous or toxic wastes.

4.13.2.4 No Action alternative

No impacts due to hazardous or toxic substances would occur, since there would be no new construction of an AFRC on the site.

4.14 Cumulative Effects Summary

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives and other projects/programs that are planned for the region. The CEQ defines cumulative impacts as the incremental impact of multiple present and future actions with individually minor but collectively significant effects. Cumulative impacts can be concisely defined as the total effect of multiple land uses and developments, including their interrelationships, on the environment.

The Preferred Site and the lands surrounding the site have been used for public, residential, and commercial purposes and presently several concrete slabs that appear to have been left after demolition of buildings remain on-site; as such, the site is and has been disturbed. The

proposed construction and operation of the AFRC would increase the developed areas in the project area by 11 acres.

Operation of the AFRC would not result in adverse cumulative impacts on training ranges or air space, ambient noise levels, or water quality or supply. Demands on local transportation routes would be increased, primarily on the weekends when most or all of the USAR units would arrive. There are currently no development or improvement plans for the immediate surrounding lands (Golden 2009). However, various road improvements by TxDOT within the Brownsville area are in the planning stages. The majority of these projects would be expected to occur along existing corridors and/or within previously disturbed sites. The magnitude of the impacts would depend upon the length and width of the road right of way (ROW) and the extant conditions within and adjacent to the ROW (TxDOT 2009). The establishment of the AFRC, when combined with other proposed developments, would have insignificant cumulative impacts on land use or biological resources at and surrounding the Preferred Site.

Cumulative effects on air quality from the Proposed Action, when combined with other on-going projects, would be minimal and would remain below *de minimis* thresholds. Operation of the AFRC would add to the cumulative amount of hazardous wastes generated in the project area. However, all wastes are disposed by licensed contractors in accordance with state and Federal regulations; consequently, negligible cumulative adverse impacts would be expected.

4.15 Best Management Practices

This section of the EA describes those measures that could be implemented to further reduce or eliminate potential adverse impacts on the human and natural environment. The BMPs are presented for each resource category that could be potentially affected. These proposed measures would be coordinated through the appropriate regulatory agencies.

4.15.1 Vegetation and Wildlife

Native seeds or plants, which are compatible with the enhancement of protected species, would be used to the extent feasible, as required under Section 7(a)(1) of the ESA, to reseed temporarily disturbed areas once construction is complete. This effort would apply only to those areas that would not be expected to be part of the permanent landscaped or maintained areas of the AFRC.

The Migratory Bird Treaty Act (MBTA) requires that private contractors obtain a construction permit if the construction activity is scheduled during the nesting season. The nesting season for this area is typically March 15 through September 15. Active nests would need to be identified and avoided to the extent practicable. Another environmental protective measure that would be considered is to schedule all construction activities outside the nesting season.

Additional measures would include BMPs, as described previously, during construction to minimize or prevent erosion and soil loss. If straw bales are used as part of the BMPs, weed seed-free straw bales would be used to eliminate the potential of spreading invasive species.

4.15.2 Air Quality

As mentioned previously, emissions associated with construction activities would be insignificant and well below *de minimis* thresholds. Proper and routine maintenance of all vehicles and other equipment would be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods would be implemented to minimize fugitive dust.

4.15.3 Water Resources

The proposed construction activities would require a SWPPP, which would be prepared and submitted to the TCEQ and EPA, as part of the TPDES permit process. The SWPPP would identify BMPs that would be implemented before, during, and after construction.

4.15.4 Cultural Resources

Prior to construction, the Army would brief the construction crews on procedures to follow in case of an unexpected discovery of cultural resources. If any cultural resources are uncovered during construction, the Army and THC would be notified, and all construction activities would stop until a qualified archaeologist can assess the significance of the cultural remains. If human remains are encountered, the local coroner and law enforcement agency would be contacted. If the remains are of Native American origin, compliance with NAGPRA regulations would be required.

4.15.5 Hazardous and Toxic Substances

Hazardous and toxic materials/wastes at the Preferred Site during construction and operation would likely consist of Petroleum, Oils, and Lubricants (POL). If hazardous waste is generated, it would be disposed of according to Federal, state and local regulations, as well as existing Army regulations and procedures. No maintenance of construction equipment would be conducted on-site, minimizing the potential for spills or direct contact with POLs. Equipment and vehicles parked overnight, or left for lengthy periods on-site, would be fitted with drip pans. On-site use of construction equipment, use of chemical products, and wastes generated during construction would comply with all Federal, state, and local regulations relating to protecting the environment from hazardous materials and containing spills. No large quantities of hazardous wastes would be stored on the site. Construction crew members would take precautions to avoid skin contact with groundwater during construction activities through the use of gloves and proper footwear.

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SECTION 5.0
FINDINGS AND CONCLUSIONS

5.0 Findings and Conclusions

5.1 Findings

5.1.1 Consequences of the Proposed Action

The Proposed Action would result in the permanent conversion of up to 11 acres of undeveloped grassland to hard surfaces and buildings. The conversion is consistent with the City of Brownsville's zoning ordinances and does not conflict with the city's current development plans for the project area. No impacts on Federal or state protected species would occur. No violations of air or water quality standards would be expected; BMPs would be implemented to ensure stormwater, during and after construction, is controlled and downstream sedimentation is either eliminated or is negligible. Temporary increases in noise would be expected during the construction. Transportation would be slightly increased during and after construction. No long-term impacts relative to utilities would be expected from the proposed construction and operation of the AFRC. No impacts due to operation or construction at the preferred site would occur.

Some benefits for local and regional employment and personal income would be expected during the construction. However, these benefits would be insignificant when compared to the Brownsville, Texas MSA. A summary of the potential effects from the Proposed Action and No Action alternative is presented in Table 5-1 on the following page.

Table 5-1. Summary Matrix of Potential Impacts

Affected Resource	No Action alternative	Proposed Action
Land Use	No impacts on land use are expected.	Up to 11 acres of undeveloped land would be converted to the facility and parking areas. The facility construction is consistent with the City of Brownsville's zoning and planned development.
Aesthetics	No adverse impacts are expected.	Slight degradation during construction and negligible significant long-term impacts would occur to the project area's visual qualities.
Air Quality	No adverse effects are anticipated.	Minor temporary effects on air quality during construction would occur. Pre-project conditions would return upon cessation of construction activities. All emissions would be below *de minimis* thresholds.
Noise	No adverse impacts are expected.	Moderate temporary increases in ambient noise levels during construction. Pre-project conditions would return upon cessation of construction activities. Operation of the facility would be expected to produce negligible increases in ambient noise levels.
Soils	No impacts on soils are expected.	Up to 11 acres of soil would be disturbed and permanently removed from potential biological and agricultural productivity. No prime farmland soils would be impacted.
Water Resources	No adverse impacts would occur.	Negligible impact on the region's water supply, quality, or resources.

Table 5-1, continued

Affected Resource	No Action alternative	Proposed Action
Biological Resources	No impacts are expected.	There would be permanent, but minimal, impacts on biological resources. There is no suitable habitat to support Federally threatened or endangered species at the Preferred Site; therefore, there would be no impacts to Federally-listed species. Three state listed species have the slight potential to be encountered within the project area; however, it is very unlikely that any of these species occur at the Preferred Site.
Cultural Resources	No effects are anticipated.	No impacts are expected.
Socioeconomics	No effect on the regional or local economy would be expected.	Negligible temporary, but beneficial, effects for the City of Brownsville during construction.
Transportation	No adverse impacts are expected.	Slight increase in local traffic along U.S. 281, U.S. 83, and SH 281during construction; no major congestion is expected. Traffic would be increased (by about 1 percent) on these same streets once the relocation is complete.
Utilities	No adverse impacts are expected.	Slight increase in the demands on the City of Brownsville's public systems. More than sufficient capacity is available to meet these demands.
Hazardous Materials	No adverse impacts are expected.	No potential adverse impacts due to the presence of hazardous or toxic substances would occur upon implementation of the Proposed Action

5.1.2 Consequences of the No Action alternative

Under the No Action alternative, the existing human and natural environment at the Preferred Site would remain status quo, at least for the short-term. Since the area is under private ownership with no existing buildings or structures, there is a possibility that the Preferred Site could be developed at some point in the future.

5.2 Conclusions

Based on the information presented in the previous sections, it is concluded that the best available site for the proposed construction and operation of the AFRC is at the Preferred Site, and the development of this site would not result in insignificant adverse impacts on the area's human and natural environment. Therefore, issuance of a FNSI is warranted and no additional NEPA documentation (i.e., Environmental Impact Statement) is required.

SECTION 6.0
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SECTION 7.0
LIST OF PREPARERS

7.0 List of Preparers

The following people were primarily responsible for preparing this Environmental Assessment.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
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Suna Adam Knaus	GSRC	Forestry/Wildlife	19 years natural resources	EA review
Chris Ingram	GSRC	Biology/Ecology	33 years NEPA and natural resources	Project Manager, DOPAA, EA Technical Review
Bretton Sommers, Ph.D.	GSRC	Archaeology/GIS	6 years archaeology/GIS	EA preparation; cultural resources
Josh McEnany	GSRC	Forestry/Wildlife	8 years natural resources and NEPA studies	EA preparation; water resources, aesthetics, biological resources
Shanna McCarty	GSRC	Ecology	2 years NEPA and natural resources	EA preparation; socioeconomics
Steve Kolian	GSRC	Environmental Studies	13 years environmental and marine science	EA preparation; air and water quality
Nicole Forsyth	GSRC	Environmental Engineering	6 years environmental and NEPA studies	EA preparation; utilities, hazardous waste, soils and transportation
Carey Perry	GSRC	Biology/Ecology	1 year natural resources	EA preparation; land use
Ron Webster	Ray Clark Group, LLC	Socioeconomics/Civil Engineering	35 years NEPA studies and socioeconomic analyses	EIFS modeling and analysis

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SECTION 8.0
ACRONYMS AND ABBREVIATIONS

8.0 Acronyms and Abbreviations

AFRC	Armed Forces Reserve Center
ARNG	Army National Guard
ASIV	Available Site Identification and Validation
AT/FP	Anti-Terrorism/Force Protection
BEA	Bureau of Economic Analysis
BMP	Best Management Practices
BPUB	Brownsville Public Utilities Board
BRAC Commission	Defense Base Realignment and Closure Commission
BTEX	Benzene, Toluene, Ethyl benzene and Xylene
BUS	Brownsville Urban System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon monoxide
CWA	Clean Water Act
dB	Decibel
dBA	Decibels A-weighted scale
DoD	Department of Defense
EA	Environmental Assessment
ECP	Environmental Conditions of Property
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Farm to Market Road
FNSI	Finding of No Significant Impact
HUD	U.S. Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
I	Interstate
LPST	Leaking Petroleum Storage Tank
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons per Day
MSA	Metropolitan Statistical Area
MW	Monitoring Well
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NO_2	Nitrogen Dioxide
NRCS	Natural Resource Conservation Service
O_3	Ozone
PCL	protective concentration levels
PCPI	Per Capita Personal Income
PM-10	Particulate Matter less than 10 microns
PM-2.5	Particulate Matter less than 2.5 microns
POL	Petroleum, Oils, and Lubricants
PSH	phase separated hydrocarbons
ROI	Region of Influence
RRC	Regional Readiness Command

SF	Square Feet
SH	State Highway
SHPO	State Historic Preservation Officer
SO_2	Sulfur Dioxide
SWPPP	Stormwater Pollution Prevention Plan
TASA	Texas Archaeological Site Atlas
TCEQ	Texas Commission on Environmental Quality
TEC	The Environmental Company, Inc.
TEJV	Terraine-Ensafe Joint Venture
TDS	Total Dissolved Solids
THC	Texas Historical Commission
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TRRP	Texas Risk Reduction Program
TWDB	Texas Water Development Board
TPI	Total Personal Income
TxDOT	Texas Department of Transportation
U.S.	United States
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USARC	U.S. Army Reserve Center
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
UST	Underground Storage Tank

APPENDIX A
Air Emission Calculations

CALCULATION SHEET-COMBUSTIBLE EMISSIONS

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	1	300	8	240	576000
Diesel Road Compactors	0	100	8	240	0
Diesel Dump Truck	2	300	8	240	1152000
Diesel Excavator	1	300	8	90	216000
Diesel Hole Trenchers	0	175	8	90	0
Diesel Bore/Drill Rigs	0	300	8	90	0
Diesel Cement & Mortar Mixers	1	300	8	240	576000
Diesel Cranes	2	175	8	240	672000
Diesel Graders	1	300	8	90	216000
Diesel Tractors/Loaders/Backhoes	2	100	8	240	384000
Diesel Bull Dozers	1	300	8	240	576000
Diesel Front End Loaders	1	300	8	240	576000
Diesel Fork Lifts	2	100	8	240	384000
Diesel Generator Set	3	40	8	240	230400

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTIBLE EMISSIONS

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.279	1.314	3.485	0.260	0.254	0.470	340.227
Diesel Road Paver	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Dump Truck	0.559	2.628	6.970	0.520	0.508	0.939	680.454
Diesel Excavator	0.081	0.309	1.095	0.076	0.074	0.176	127.657
Diesel Hole Cleaners\Trenchers	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Bore/Drill Rigs	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Cement & Mortar Mixers	0.387	1.473	4.621	0.305	0.298	0.463	336.228
Diesel Cranes	0.326	0.963	4.236	0.252	0.244	0.541	392.636
Diesel Graders	0.083	0.324	1.126	0.079	0.076	0.176	127.657
Diesel Tractors/Loaders/Backhoes	0.783	3.474	3.055	0.580	0.563	0.402	292.451
Diesel Bull Dozers	0.229	0.876	3.021	0.209	0.203	0.470	340.417
Diesel Front End Loaders	0.241	0.984	3.174	0.222	0.216	0.470	340.354
Diesel Aerial Lifts	0.838	3.284	3.622	0.588	0.571	0.402	292.324
Diesel Generator Set	0.307	0.955	1.516	0.185	0.180	0.206	149.116
Total Emissions	**4.113**	**16.583**	**35.921**	**3.277**	**3.188**	**4.715**	**3419.522**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS

Construction Worker Personal Vehicle Commuting to Construction Site-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	240	30	30	0.65	0.77	1.41
CO	12.4	15.7	60	240	30	30	5.90	7.47	13.38
NOx	0.95	1.22	60	240	30	30	0.45	0.58	1.03
PM-10	0.0052	0.0065	60	240	30	30	0.00	0.00	0.01
PM 2.5	0.0049	0.006	60	240	30	30	0.00	0.00	0.01

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Heavy Duty Trucks Delivery Supply Trucks to Construction Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	90	2	2	0.00	0.01	0.01
CO	1.32	3.21	60	90	2	2	0.02	0.04	0.05
NOx	4.97	12.6	60	90	2	2	0.06	0.15	0.21
PM-10	0.12	0.33	60	90	2	2	0.00	0.00	0.01
PM 2.5	0.13	0.36	60	90	2	2	0.00	0.00	0.01

Daily AFRC Commute to New Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	30	240	12	12	0.13	0.15	0.28
CO	12.4	15.7	30	240	12	12	1.18	1.49	2.68
NOx	0.95	1.22	30	240	12	12	0.09	0.12	0.21
PM-10	0.0052	0.0065	30	240	12	12	0.00	0.00	0.00
PM 2.5	0.0049	0.006	30	240	12	12	0.00	0.00	0.00

Truck Emission Factor Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

COMMUTER COMBUSTIBLE EMISSIONS

Weekend Training AFRC Commute to New Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	30	108	100	100	0.49	0.57	1.06
CO	12.4	15.7	30	108	100	100	4.43	5.61	10.03
NOx	0.95	1.22	30	108	100	100	0.34	0.44	0.77
PM-10	0.0052	0.0065	30	108	100	100	0.00	0.00	0.00
PM 2.5	0.0049	0.006	30	108	100	100	0.00	0.00	0.00

POV Emission Factor Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

Assume 3 weekends a month of training Friday evening through Sunday = three days a weekend driving and three times a month. Assume vehicle composition for trainees to be 50% cars and 50% pickup trucks or SUVs.

Conversion fact	gms to tons
	0.000001102

CALCULATION SHEET-FUGITIVE DUST

Construction Fugitive Dust Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006

PM2.5 Emissions

PM2.5 Multiplier	0.10	(10% of PM10 emissions assumed to be PM2.5)	EPA 2001; EPA 2006
Control Efficiency	0.50	(assume 50% control efficiency for PM10 and PM2.5 emissions)	EPA 2001; EPA 2006

Project Assumptions

Costruction Area (0.19 ton PM10/acre-month)

Duration of Construction Project	12	months
Length	0	miles
Length (converted)	0	feet
Width	0	feet
Area	12.00	acres

Staging Areas

Duration of Construction Project		months
Length		miles
Length (converted)		feet
Width		feet
Area	0.00	acres

Conversion Factors

0.000022957	acres per feet
5280	feet per mile

Project Emissions (tons/year)

	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled	PM2.5 controlled
Costruction Area (0.19 ton PM10/acr	27.36	13.68	2.74	1.37
Staging Areas	0.00	0.00	0.00	0.00
Total	**27.36**	**13.68**	**2.74**	**1.37**

APPENDIX B
Correspondence

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

February 13, 2009

Reply to the Attention of the Environmental Office

Mr. Allen Strand, Field Supervisor
U.S. Fish and Wildlife Service
Corpus Christi, Texas Ecological Services Field Office
6300 Ocean Drive, #5837
Corpus Christi, Texas 78412-5837

Dear Mr. Strand:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, Texas conduct training exercises simultaneously. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 53,018 square feet.

Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

A search of the U.S. Fish and Wildlife Service's website indicated 13 Federally sensitive species could potentially occur within Cameron County. Table 1 displays those species, their preferred habitat, and their potential to occur within or near the project site. No Critical Habitat has been designated for these species within Cameron County. Additionally, no suitable habitat for any of these species was observed on or near the project site. Enclosure B is an aerial photograph showing the disturbed nature of the site and adjacent development. In addition to

these Federal species, the Texas Parks and Wildlife Department indicated that 82 rare, threatened, and endangered species are known to or could occur in Cameron County. However, only three have the potential to occur within the project area: Eskimo curlew (*Numenius borealis*), white-lipped frog (*Leptodactylus fragilis*), and Texas Botteri's sparrow (*Aimophila botterii texana*). None of these species were observed during the biological surveys and, due to the high levels of disturbance, it is very unlikely that any of these species occur within the project site.

Table 1. Federally Listed Species Potentially Occurring Within Cameron County, Texas

Common/Scientific Name	Federal Status	Habitat	Potential to occur within Project Site
BIRDS			
Brown pelican (*Pelecans occidentalis*)	Endangered	Small, isolated coastal islands that are safe from predators such as raccoons and coyotes; nest on mud banks and spoil islands covered with woody vegetation.	No – no suitable habitat and nesting sites at or near the project site.
Piping plover (*Charadrius melodus*)	Threatened	In Texas, primarily on intertidal beaches with sand and/or mud flats with no or very sparse vegetation.	No – no suitable habitat and nesting sites at or near the project site.
Northern aplomado falcon (*Falco femoralis septentrionalis*)	Endangered	Inhabit areas of open grassland, savanna, and shrub-steppe from tropical lowlands up to 12,000 feet.	No – not likely due to lack habitat and nesting sites.
REPTILES			
Green sea turtle (*Chelonia mydas*)	Threatened	Warm tropical, shallow coastal waters.	No – no coastal waters at or near the project site.
Hawksbill sea turtle (*Eretmochelys imbricata*)	Endangered	The most tropical of all sea turtles; found near coral reefs and rocky outcroppings in tropical, shallow coastal waters.	No – no coastal waters at or near the project site.
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered	Warm tropical, shallow coastal waters with sandy or muddy bottoms rich in crustaceans.	No – no coastal waters at or near the project site.
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Highly oceanic, utilize coastal waters only during breeding season.	No – no coastal waters at or near the project site.
Loggerhead sea turtle (*Ceretta caretta*)	Threatened	Coastal tropical and subtropical waters, ventures into temperate waters to boundaries of warm currents, but prefers coastal bays, also found in coastal streams, creeks, and open ocean	No – no coastal waters at or near the project site.

Common/Scientific Name	Federal Status	Habitat	Potential to occur within Project Site
MAMMALS			
Gulf Coast jaguarundi (*Herpailurus (=Felis) yogouaroundi cacomitli*)	Endangered	Dense, thorny scrub, especially near water	No – not likely due the lack of habitat at or near the project site.
Ocelot (*Leopardus (=Felis) pardalis*)	Endangered	Dense, thorny shrub lands of the Lower Rio Grande Valley and Rio Grande Plains. Deep, fertile clay or loamy soils are generally needed to produce suitable habitat.	No – not likely due the lack of habitat at or near the project site.
West Indian manatee (*Trichechus manatus*)	Endangered	Rivers, estuaries, and coastal areas of the southeastern US coast along Central America and the West Indies to the northern coastline of South America.	No – no riverine, estuarine, or coastal waters at or near the project site.
PLANTS			
South Texas ambrosia (*Ambrosia cheiranthifolia*)	Endangered	Open grasslands or savannas on soils varying from clay loams to sandy loams.	No – not likely due to lack of appropriate soils at project site.
Texas ayenia (*Ayenia limitaris*)	Endangered	Found on terraces and floodplains in dense, relatively moist, subtropical riparian woodlands, with an overall canopy cover of about 95%.	No – not likely due the lack of habitat at or near the project site.

Pedestrian surveys have been completed at the preferred site and none of these Federally protected species or suitable habitat capable of supporting these species was observed at the project site. The site consists of a disturbed and undeveloped grassland containing various grasses and shrubs such as dallisgrass (*Paspalum dilatatum*), Johnsongrass (*Sorghum halepense*), Bermuda grass (*Cynodon dactylon*), crabgrass (*Digitaria* sp.), goose grass (*Eleusine indica*), and nutsedge (*Cyperus* sp.). A few small trees and shrubs,Texas ebony (*Chloroleucon ebano*), acacia (*Acacia* sp.), Mexican ash (*Fraxinus berlandieriana*), Texas palm (*Sabal palmetto*), retama (*Parkinsonia aculeate*) and honey mesquite (*Prosopis glandulosa*) trees are scattered throughout the site. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (see Enclosure B). Photographs taken during the field surveys are presented in Enclosure C.

Wildlife species observed during the field investigation included northern mockingbird (*Mimus polyglottos*) and Couch's kingbirds (*Tyrannus couchii*).

Based on these surveys and the existing conditions at and surrounding the preferred site, we have determined that the proposed action would have no effect on Federal or state-listed species. Because of the limited size of the proposed construction footprint and the low quality of habitat at the site, insignificant impacts to general wildlife populations would occur as a result of the proposed construction and operation of the AFRC.

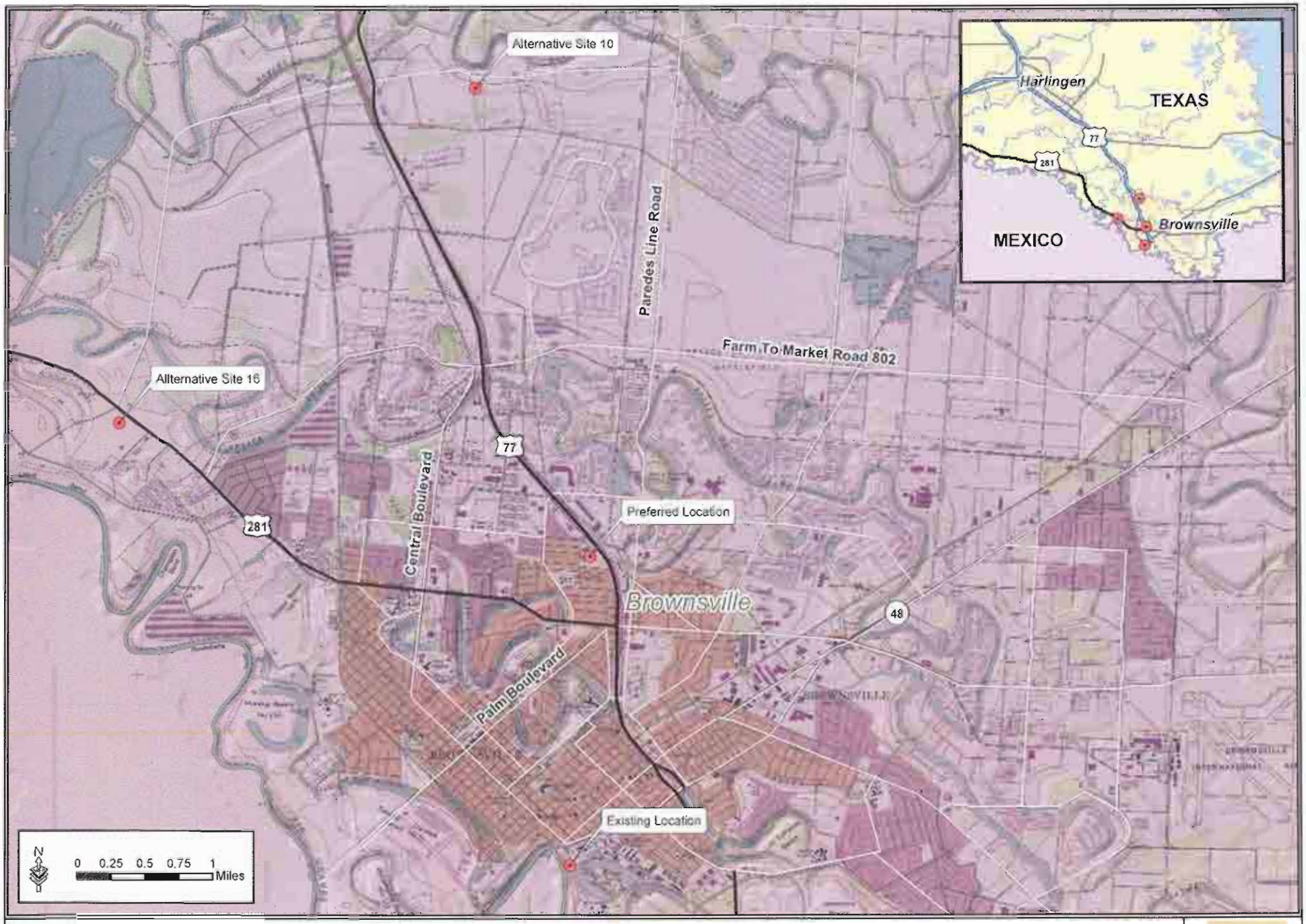
We respectfully request that you provide a written concurrence with our determination. Your prompt attention and cooperation would be greatly appreciated. If you have questions or concerns about this project, please do not hesitate to call me at (501) 771-7992.

Sincerely,

James Wheeler II

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

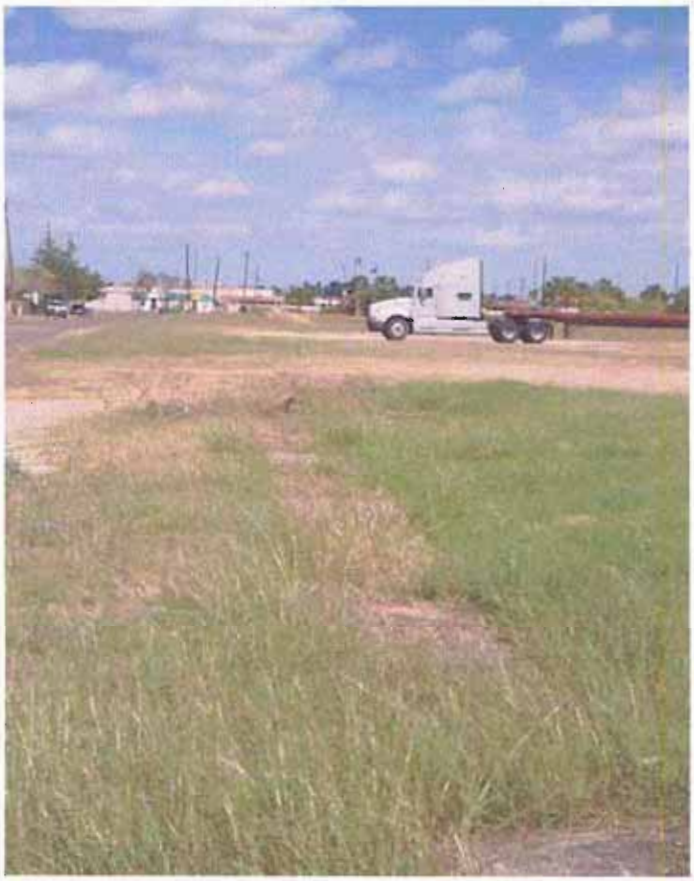
Photograph 1. Project Site at the northwest corner facing east.

Photograph 2. Projtect site at the northwest corner facing south.

Photograph 3. Project site at the southeast corner facing north.

Photograph 4. Project site at southeast corner facing west.

Photograph 5. Project site at northeast corner facing west.



Photograph 6. Project site at the southwest corner facing north.

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

February 13, 2009

Reply to the Attention of the Environmental Office

Ms. Kathy Boydson
Wildlife Diversity Program
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Dear Ms. Boydson:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, Texas conduct training exercises simultaneously. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 53,018 square feet.

Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

A search of the U.S. Fish and Wildlife Service's website indicated 13 Federally sensitive species could potentially occur within Cameron County. Table 1 displays those species, their preferred habitat, and their potential to occur within or near the project site. No Critical Habitat has been designated for these species within Cameron County. Additionally, no suitable

habitat for any of these species was observed on or near the project site. Enclosure B is an aerial photograph showing the disturbed nature of the site and adjacent development. In addition to these Federal species, the Texas Parks and Wildlife Department indicated that 82 rare, threatened, and endangered species are known to or could occur in Cameron County. However, only three have the potential to occur within the project area: Eskimo curlew (*Numenius borealis*), white-lipped frog (*Leptodactylus fragilis*), and Texas Botteri's sparrow (*Aimophila botterii texana*). None of these species were observed during the biological surveys and, due to the high levels of disturbance, it is very unlikely that any of these species occur within the project site.

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Common/Scientific Name	Federal Status	Habitat	Potential to occur within Project Site
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Texas ayenia (*Ayenia limitaris*)	Endangered	Found on terraces and floodplains in dense, relatively moist, subtropical riparian woodlands, with an overall canopy cover of about 95%.	No – not likely due the lack of habitat at or near the project site.

Pedestrian surveys have been completed at the preferred site and none of these Federally protected species or suitable habitat capable of supporting these species was observed at the project site. The site consists of a disturbed and undeveloped grassland containing various grasses and shrubs such as dallisgrass (*Paspalum dilatatum*), Johnsongrass (*Sorghum halepense*), Bermuda grass (*Cynodon dactylon*), crabgrass (*Digitaria* sp.), goose grass (*Eleusine indica*), and nutsedge (*Cyperus dactylon*). A few small trees and shrubs,Texas ebony (*Chloroleucon ebano*), acacia (*Acacia* sp.), Mexican ash (*Fraxinus berlandieriana*), Texas palm (*Sabal palmetto*), retama (*Parkinsonia aculeate*) and honey mesquite (*Prosopis glandulosa*) trees are scattered throughout the site. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (see Enclosure B). Photographs taken during the field surveys are presented in Enclosure C.

Wildlife species observed during the field investigation included northern mockingbird (*Mimus polyglottos*) and Couch's kingbirds (*Tyrannus couchii*).

Based on these surveys and the existing conditions at and surrounding the preferred site, we have determined that the proposed action would have no effect on Federal or state-listed species. Because of the limited size of the proposed construction footprint and the low quality of habitat

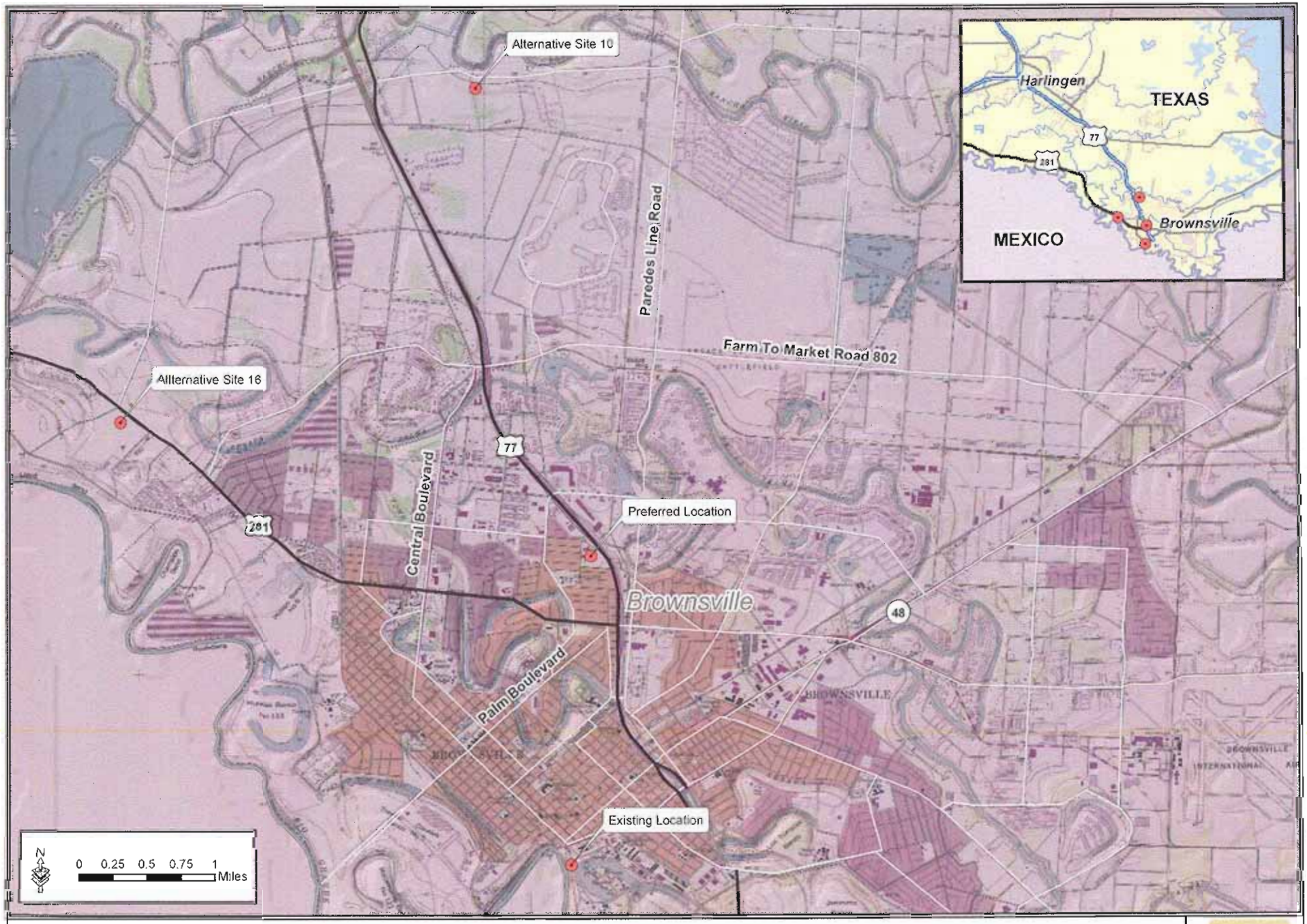
at the site, insignificant impacts to general wildlife populations would occur as a result of the proposed construction and operation of the AFRC.

We respectfully request that you provide a written concurrence with our determination. Your prompt attention and cooperation would be greatly appreciated. If you have questions or concerns about this project, please do not hesitate to call me at (501) 771-7992.

Sincerely,

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

Photograph 1. Project Site at the northwest corner facing east.

Photograph 2. Projtect site at the northwest corner facing south.

Photograph 3. Project site at the southeast corner facing north.

Photograph 4. Project site at southeast corner facing west.

Photograph 5. Project site at northeast corner facing west.

Photograph 6. Project site at the southwest corner facing north.

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

February 13, 2009

Reply to the Attention of the Environmental Office

Mr. David Ramirez, Regional Director
Region 15, Harlingen
Texas Commission on Environmental Quality
1804 West Jefferson Ave.
Harlingen, Texas 78550-5247

Dear Mr. Ramirez:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, Texas conduct training exercises simultaneously. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 53,018 square feet.

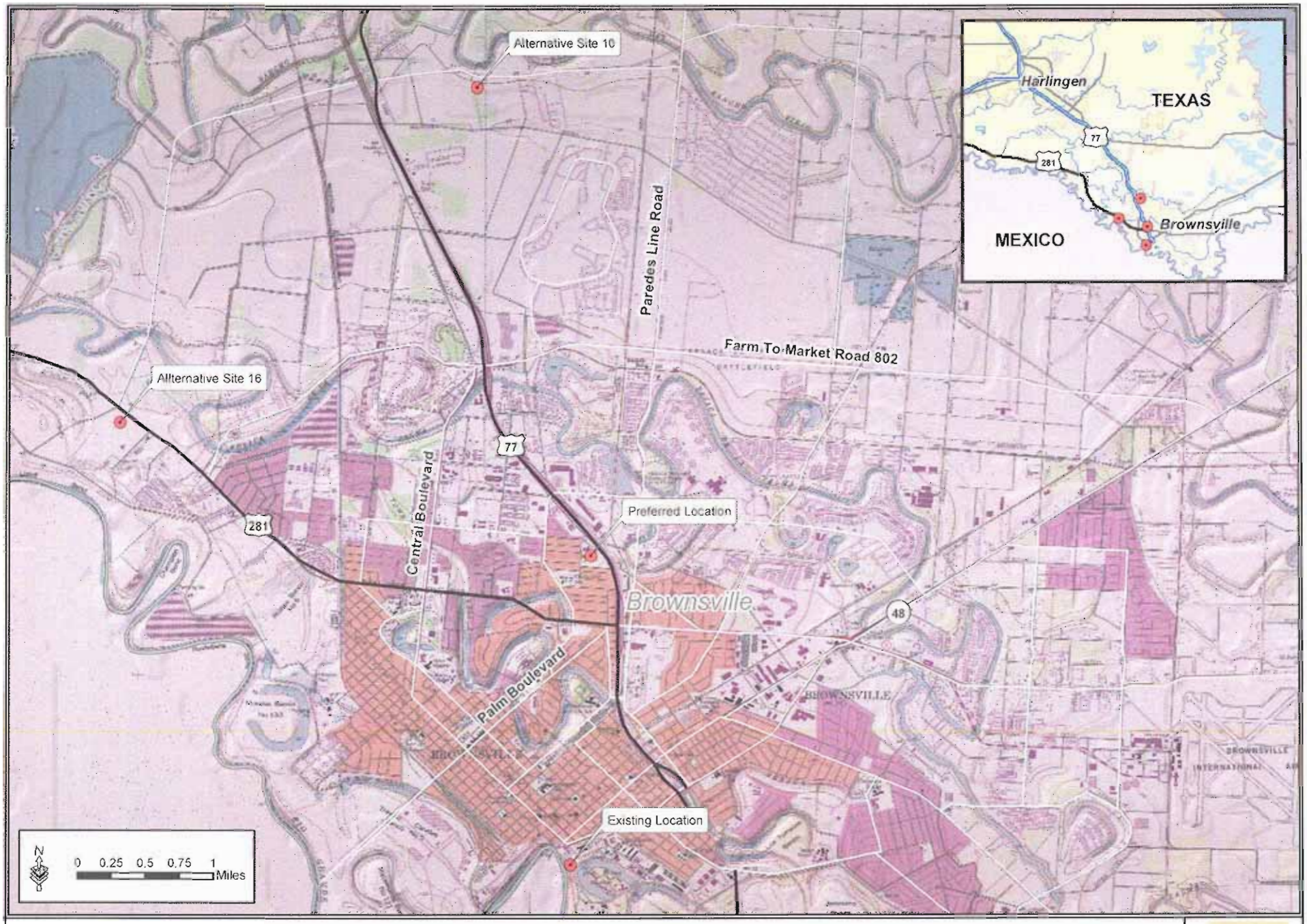
Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (Enclosure B). Photographs taken during the field surveys are presented in Enclosure C.

We respectfully request that you provide us with any concerns or issues that you feel should be addressed in this EA. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in early April 2009. If you have any questions, please do not hesitate to call me at (501)771-7992.

Sincerely,

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

Photograph 1. Project Site at the northwest corner facing east.

Photograph 2. Projtect site at the northwest corner facing south.

Photograph 3. Project site at the southeast corner facing north.

Photograph 4. Project site at southeast corner facing west.

Photograph 5. Project site at northeast corner facing west.

Photograph 6. Project site at the southwest corner facing north.

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

February 13, 2009

Reply to the Attention of the Environmental Office

Mr. F. Lawrence Oaks
State Historic Preservation Officer
ATTN: Mr. Bill Martin
Texas Historical Commission
1511 Colorado Street
Austin, Texas 78701

Dear Mr. Oaks:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, Texas, if the state decides to relocate these units. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 54,651 square feet.

Three locations, the preferred site and two alternate sites (Alternative Site 16 and 10) in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (Enclosure B).

After a thorough search of the archaeological, historic building, and burial indices using the online Texas Archaeological Sites Atlas, we have determined that the preferred project location is 0.1 mile from the site boundary of the Resca de la Palma Battlefield (Site 41CF3) and 0.5 mile from the National Register District of the same name. No other recorded sites or historic structures have been reported on or within 1 mile of the preferred project property.

No cultural resources were identified during pedestrian survey or subsurface testing of the preferred site. In addition, a pedestrian reconnaissance was performed of the view shed of the preferred tract. No structures or buildings that meet the 50 year age minimum for historic structures. As a result, no impacts to cultural resources are anticipated from the implementation of the proposed action alternative. A copy of the cultural resources report is enclosed for your review and comment (Enclosure C).

The construction and operation of the proposed AFRC at the alternative sites would be expected to result in similar impacts as described above for the preferred site. However, cultural resources field surveys were not conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If Alternative Site 16 or 10 are ultimately selected, cultural resources surveys and supplemental Section 106 coordination would be required to fully assess the potential impacts to these resources.

If activities were to impact cultural resources not previously identified, we will immediately inform you of the discovery and to invite you to assist in the development of procedures for minimizing adverse impacts to the newly discovered cultural resources.

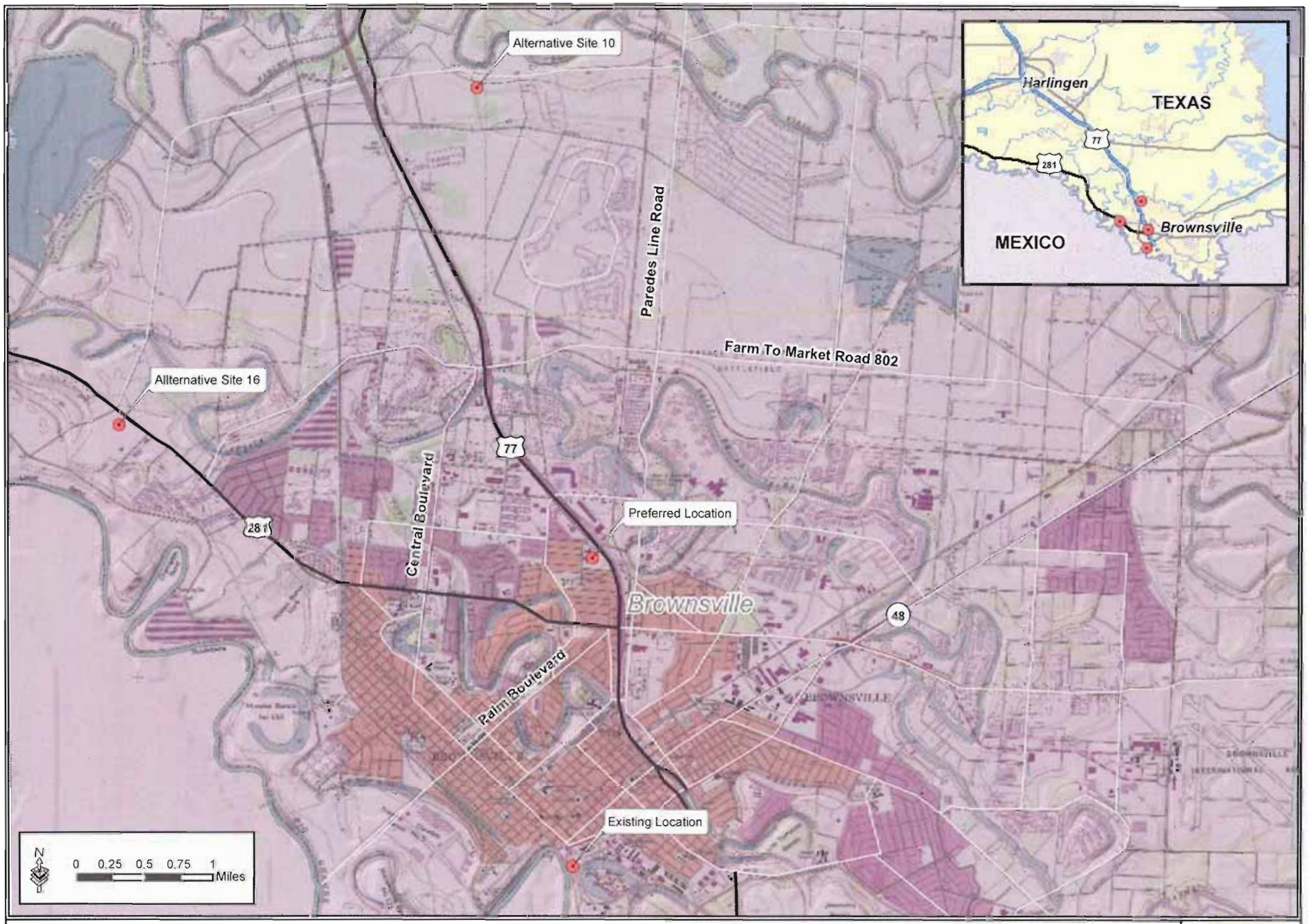
We request your concurrence on our determination that there are "no historic properties affected" by building the proposed AFRC, Brownsville. If you have questions or concerns about this project, please contact me at (501) 771-7992, at your earliest convenience.

Sincerely,

James Wheeler II

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

Phase I Cultural Resources Survey of the Proposed Brownsville Armed Forces Reserve Center, Cameron County, Texas

Prepared for
Brockington & Associates, Inc.
6611 Bay Circle, Suite 220
Norcross, Georgia. 30071

Prepared by
TEC, Inc.
1658 Cole Boulevard, Suite 190
Golden, Colorado 80401

USACOE Contract #W91278-07-D-0111
Task Order #0004

Contains Privileged Information not for Public Release under authority of the National Historic Preservation Act and the Archaeological Resources Protection Act

Phase I Cultural Resources Survey of the Proposed Brownsville Armed Forces Reserve Center, Cameron County, Texas

By
Dulaney Barclay
Senior Staff Archaeologist

Kurt P. Schweigert
Principal Investigator

Prepared for:
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6611 Bay Circle, Suite 220
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Prepared by:
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U.S. Army Corp of Engineers Contract #W91278-07-D-0111
Task Order #0004
U.S. Army Corp of Engineers Report No.

February 2009

Contains Privileged Information not for Public Release under authority of the National Historic Preservation Act and the Archaeological Resources Protection Act

Management Summary

TEC, Inc. of Golden, Colorado conducted an intensive inventory for cultural resources of a proposed new Armed Forces Reserve Center (AFRC) in Brownsville, Texas for the U.S. Army Corp of Engineers (USACE), Mobile District. The proposed AFRC site is located within the incorporated city limits of Brownsville, Texas. It encompasses approximately 10.874 acres of a vacant lot bounded by city streets on all sides. The site was inventoried for archaeological remains and historic structures. An intensive archaeological survey of the entire lot yielded no evidence of archaeological sites or historic structures. A visual inspection of the surrounding area within the viewshed of the site did not reveal the presence of any historic structures. The project will have no effect on any known historic properties and cultural resource clearance is recommended.

Introduction

TEC, Inc. of Golden, Colorado was subcontracted by Brockington and Associates, Inc. of Norcross, Georgia to conduct a Phase I Cultural Resources Survey of a proposed new Armed Forces Reserve Center (AFRC) in Brownsville, Texas. Brockington and Associates of Norcross, Georgia and Gulf South Research Corporation of Baton Rouge, Louisiana are preparing an Environmental Assessment (EA) for the US Army Corp of Engineers (USACE) to analyze the effects associated with the Army's proposed action as required under the National Environmental Policy Act (NEPA) of 1969. The information contained in this report will be utilized in the development of the EA for the proposed action.

The Brownsville AFRC site encompasses approximately 10.874 acres located at the northern edge of the incorporated city limits of Brownsville, Texas (Figure 1). The property is an irregular shaped polygon within the Los Ebanos property subdivision. It is bounded by Woodruff Avenue bounds it on the west, Los Ebanos Boulevard bounds it on the east and Tulane Avenue bounds it on the south. It is bordered by low income housing developments on the west and south. A small apartment complex is located at the southeast corner of the property. A small city park and strip of small business are located immediately northeast of the property with the Frontage Road and the U.S. 88 & 77 Expressway beyond it. There are no historic structures or features present on the property and no historic structures were found within its viewshed.

The property was surveyed on January 14, 2009 by TEC, Inc. Senior Staff Archaeologist Dulaney Barclay. An intensive pedestrian surface inspection was conducted of the property and a visual inspection for historic structures was performed in the immediately surrounding area. This report was prepared by Mr. Barclay. Maps were prepared by TEC, Inc. GIS specialist Melissa Johnson. The principal investigator for the project is Mr. Kurt Schweigert. All records and photographic materials are housed at the TEC, Inc. office in Golden, Colorado.

Environmental Background

The project area is located in the Rio Grande Plains region of South Texas (The Handbook of Texas Online-Cameron County, retrieved 01/31/2009). Elevations in Cameron County range from 0 feet (sea level) to 60 feet above sea level with the Gulf Coast located approximately 20 miles to the east. The Rio Grande River is located only a few miles to the south. The coastal plain is a flat nearly featureless plain that is dotted with numerous lakes and crossed by drainages all of which ultimately flow into the Gulf of Mexico. The climate of the project area is subtropical with hot summers and mild winters. Temperatures range from an average low of 50°F to 69°F in January to an average high of 75°F to 94°F in July. Rainfall averages 26 inches a year (The Handbook of Texas Online-Cameron County, retrieved 01/31/2009). The subtropical climate of the Brownsville area supports a variety of vegetation including Palm trees, Mesquite trees, live oaks, and shrubs as well as a variety of grasses including bluestems and grama (The Handbook of Texas Online-Cameron County, retrieved 01/31/2009). The soils in most of Cameron County consist of loamy to clayey surface layers and clayey subsoils (The Handbook of Texas

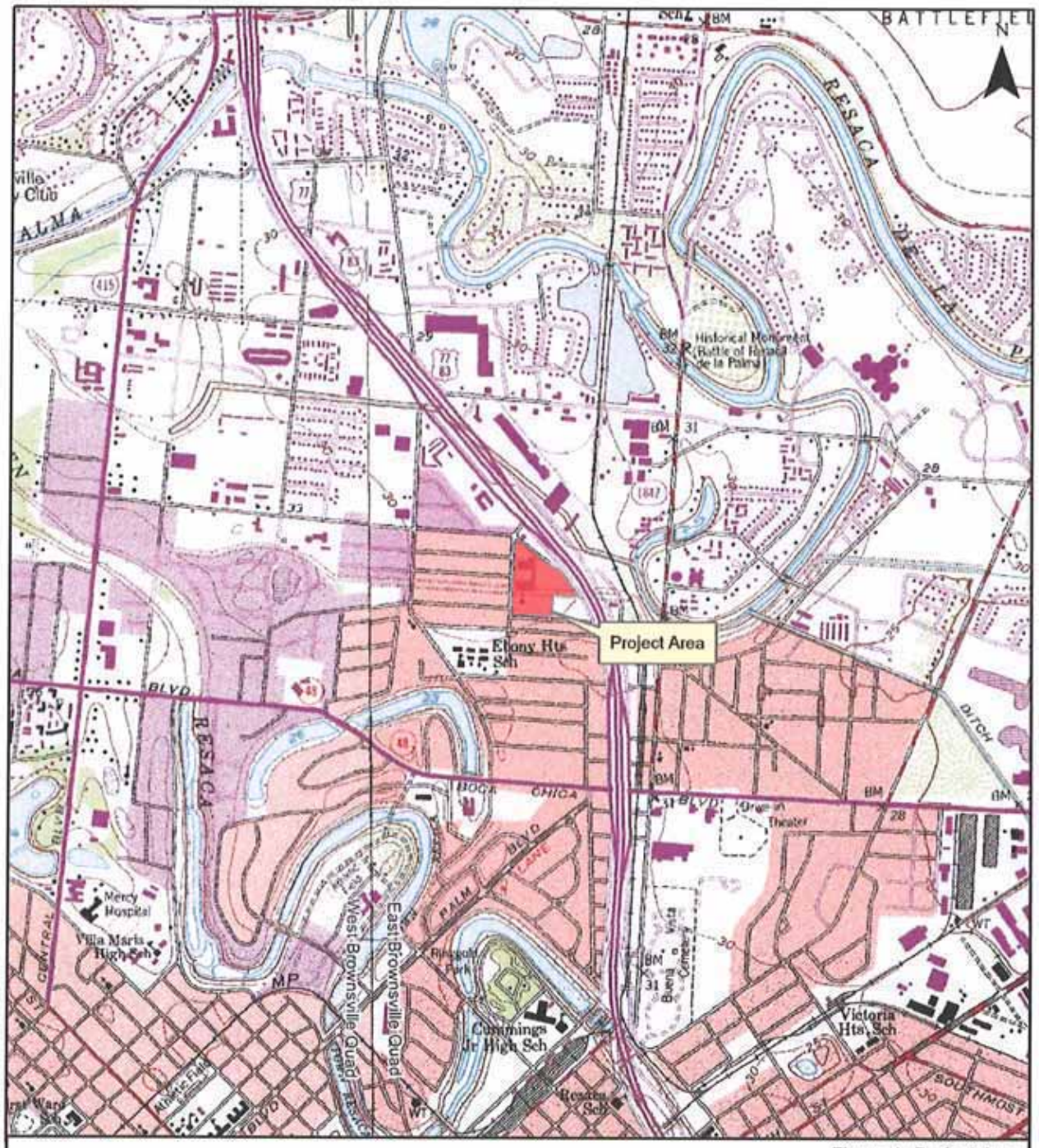


Figure 1: Project Area
Brownsville, Texas
USGS 7.5' East Brownsville Quad (1995)
Cameron County, Texas
1:24,000

Online-Cameron County, retrieved 01/31/2009). The soils in the project area consist of very fine textured loams that formed in very fine bottomland deposits.

The project site is located on an open, flat vacant lot at the edge of the Brownsville incorporated city limit. The site is covered by thick short grasses with scattered trees (Figure 2). The ground visibility ranged from 0-10%. Pre-field research on the soils present at the site through the National Resource Conservation Service (NRCS) indicated it is covered by two different soil mapping units.

Figure 2- Site overview from southeast corner of property with Mesquite tree in center of frame. View is to the northwest. Housing development in background Los Ebanos Boulevard is to the right with small businesses beyond.

The northern half of the project site is covered by the Olmito-Urban (ON) land complex and the southern half by the Laredo-Urban land complex (LG). The Olmito-Urban land complex soil is a silty clay that can be more than 80 inches thick. Its parent material is calcareous clayey alluvium found in clayey bottomland environments located on delta plains. The Laredo-Urban land complex is also more than 80

inches thick and consists of a silt loam underlain by a silty clay loam. Its parent material is a calcareous silty alluvium that is found in loamy bottomland environments located on delta plains.

Research Design

The objectives of the current investigation are to identify, document, and evaluate for eligibility for the National Register of Historic Places (NRHP) all cultural resources within the project area. Providing management recommendations for all cultural resources in the project area is the ultimate goal of the current investigation. To be eligible to the National Register, a property must be significant. The assessment of significance is based on four criteria set forth in 36CFR 800 60.4. These criteria are as follows:

a. The resource is associated with events that made a significant contribution to the broad patterns of our history
b. The resource is associated with the lives of persons significant in our history
c. The resource possesses distinctive characteristics of a type, period, or method of construction; represents the works of a master; possesses high artistic values; or it represents a significant entity whose components may lack individual distinction
d. The resource has yielded, or has the potential to yield, important information about our history or prehistory

Most structural sites are eligible under Criteria A, B and C while most archaeological sites are eligible under Criterion D.

Along with an eligibility assessment, the property is evaluated for integrity. The integrity of a property is its ability to convey its significance. There are seven aspects of integrity that are evaluated. These are location, materials, design, workmanship, setting, feeling, and association. For a property to be eligible for the National Register, it must possess most if not all of the seven aspects of integrity.

Files Search

A pre-field search of the Texas Archaeological Site Atlas indicated no previous surveys or previously recorded cultural resources are present within the project boundaries. One significant historic site is however located within a mile of the project area. The historic monument for the site of the famous Resaca de la Palma Battle that was fought on May 9, 1846 during the Mexican War is located approximately 0.75 miles north/northeast of the project area on the east side of US Highway 77/83 and the north side of the Resaca de la Palma (Figure 3). The site was designated a National Historic Landmark in 1960 and was listed on the National Register in 1966. A site with the same Smithsonian site number as the historic battlefield (41CF3) that may be associated with that historic site is located approximately 0.5 miles north of the project area. It is on the south side of the Resaca de la Palma and the east side of US Highway 77/83.

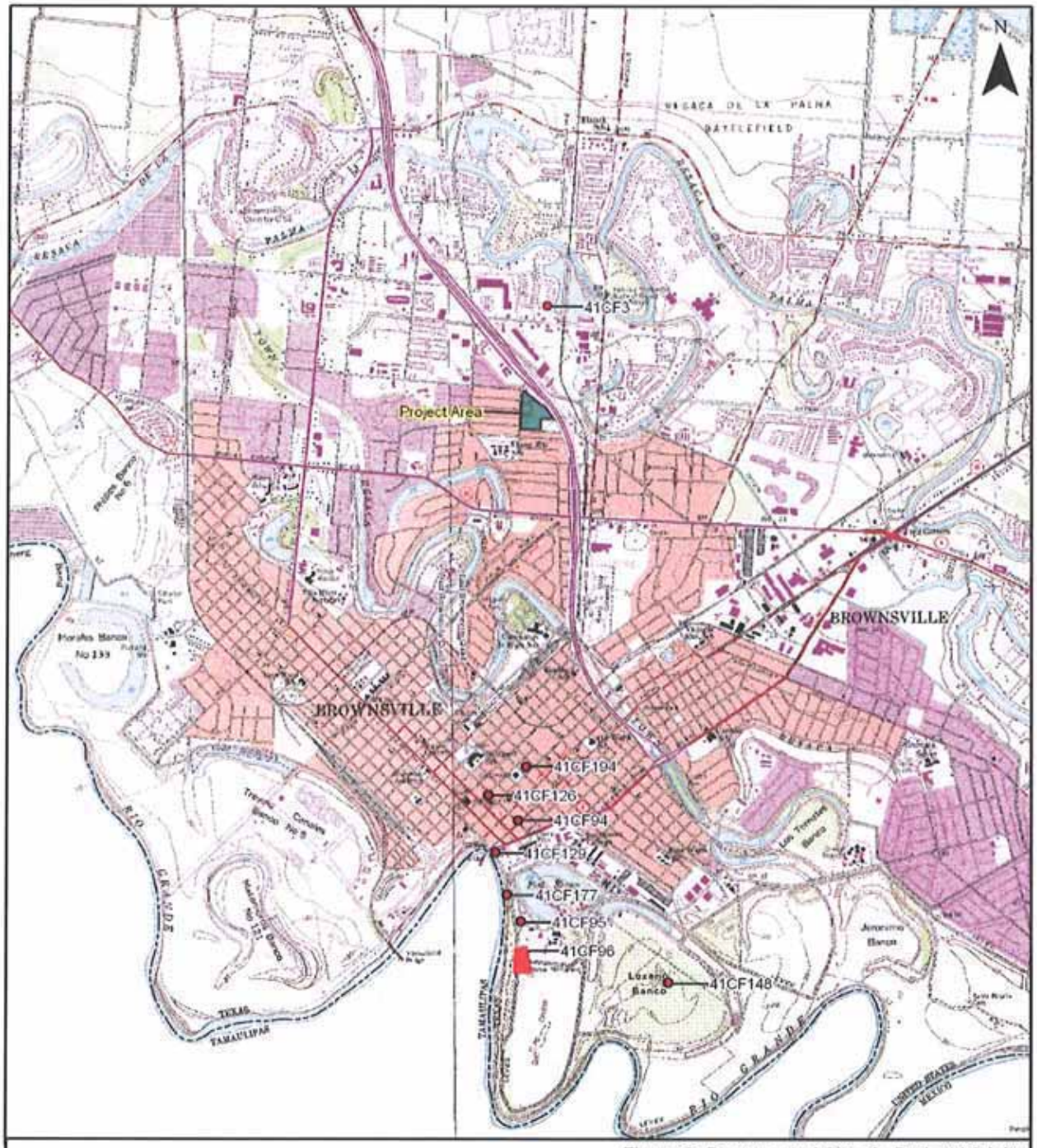


Figure 3: Documented Sites in Project Vicinity
Brownsville, Texas
USGS 7.5' East Brownsville Quad (1995)
Cameron County, Texas
1:48,000

A few sites have been also been recorded in the general area, mostly to the south along the Rio Grande River near the site of historic Fort Brown on and around what is today the campus of the University of Texas at Brownsville (see Figure 3). The previous recorded sites include an Early 20th Century irrigation canal and pump station (41CF182), prehistoric artifact scatters (41CF45, 41CF105, 41CF183), prehistoric open camps (41CF186), historic artifact scatters (41CF90, 41CF148, 41CF150, 41CF154, 41CF156, 41CF178) the remains of farmsteads and ranches (41CF185), historic dumps (41CF204), historic buildings (41CF94), remains of historic Fort Brown (41CF96.2), a historic cistern (41CF126), and the remains of a historic steamboat (41CF177).

Cultural Background

Prehistoric artifacts found in Cameron County suggest it has been inhabited for thousands of years but archaeological sites are rare (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). Seven linguistic groups are known to have inhabited the lower Rio Grande valley in historic times including the Coahuiltecans and Karankawas. They hunted, fished, and gathered a variety of animals and plants (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). Comanches from the north made occasional forays into the area in the 19th Century but by the end of the early 20th Century nearly all traces of Native Americans had disappeared (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009).

Despite 17th Century explorations by the Spanish, the area was not settled by Europeans until the 18th Century. The first Spanish explorers included Jacinto Garcia de Sepulveda in 1638, Alonso De Leon in 1687 on his second trip to find Fort Louis, and Miguel de la Garza Falcon in 1747 (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). The area was described by Falcon as unfit for settlement because of a lack of fresh water but in 1757 Jose Tienda de Cuervo recommended titles to the land be given to the Colonists. In 1765 the community of San Juan de los Esteros (present day Matamoros) was established on the south bank of the Rio Grande River. In 1781, land on the north bank of the Rio Grande River that included the site of present day Brownsville was given to Jose Salvador de la Garza who established a ranch 16 miles to the northwest (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009).

By 1836, a small settlement had been established on the north bank of the Rio Grande River. Prior to 1836, the area was claimed by Mexico as part of the state of Tamaulipas. It was claimed by the United States as part of the state of Texas following the treaties of Velasco (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). Mexico continued to claim the area and the rancheros ranged their cattle herds there. Several small communities had been established along the Rio Grande River when Gen. Zachary Taylor arrived in 1846 to construct a fort across the river from Matamoros. In April of that year, a skirmish occurred at Las Rucias in southwestern Cameron County between Mexican troops and U.S. troops that marked the beginning of the Mexican War. Other battles that occurred during the Mexican War in Cameron County were the battle of Palo Alto and the battle of Resaca de la Palma (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009).

The area was officially ceded to the United States in 1848 under the Treaty of Guadalupe-Hildalgo. Brownsville became the county seat for Cameron County in 1849 (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). A lucrative trading economy was established along the Rio Grande River which spurred growth in the area. In 1849 and 1850, gold seekers on their way to the gold fields of California came through the area with some staying to settle. The area was hit with Cholera and Yellow Fever outbreaks several times in those years but the population continued to grow (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009).

During the Civil War, Brownsville was one of the principal ports used by the Confederacy to smuggle cotton and other goods through the Union blockades. Goods were shipped overland from Brownsville to Brazos Santiago at the mouth of the Rio Grande River (The Handbook of Texas Online-Brownsville, retrieved 1/31/2009). Federal troops under Gen. Nathaniel Banks marched on Brownsville in 1863 to put an end to the Confederate trade. Confederate forces at Fort Brown blew it up and withdrew. Confederate troops under John S. (Rip) Ford reoccupied the town in 1864 and remained there until May of 1865 (The Handbook of Texas Online-Brownsville, retrieved 1/31/2009). The last battle of the Civil War, the battle of Palmito Ranch, was fought at nearby Brazos Santiago in May 1865, a month after Lee's surrender (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009).

Fort Brown was rebuilt following the war and Federal troops once again occupied it. The economy of the area suffered greatly during Reconstruction following the Civil War due its isolation and lack of transportation for shipping goods to markets (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). A few of the wealthy landholders (King, Kenedy, and Brown families) in the area established large ranches and farming showed a marked increase after the Civil War. By 1890, the few large landowners controlled 97 percent of Cameron County (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009).

The arrival of the railroad in 1904 changed the local economy dramatically. The St. Louis, Brownsville, and Mexico Railway opened access to markets to the north and brought in a wave of settlers from the Midwest, lured by a mild climate and cheap land. The land was cleared of brush and irrigation systems and an extensive system of roads were constructed. Large scale truck farming was established and the first citrus orchard was planted in 1904 by H.G. Stillwell., Sr. which opened the door for the one of the Valleys leading industries today (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). The population continued to grow rapidly between 1910 and 1930 with immigrants from Mexico flooding the area as well as those from the Midwest. A 17-mile long channel was completed in 1936 between Brownsville and Brazos Santiago for deepwater vessels bringing goods inland to Brownsville (The Handbook of Texas Online-B rownsville, retrieved 1/31/2009). The Port of Brownsville was opened 1936 and shipping became another leading industry in the area. Trade with Mexico continued to be lucrative including trade in illegal liquor during Prohibition. Agriculture continued to expand with farmers abandoning corn in favor of vegetables, small fruits, and cotton (The Handbook of Texas Online-Cameron County, retrieved 1/31/2009). During World War II, Fort Browns served as a training base for

the 124th Cavalry. The base was deactivated in 1945 (The Handbook of Texas Online-Brownsville, retrieved 1/31/2009).

Methods

The methods used in this investigation conform to Texas Historical Commission standards. The entire property was surveyed for cultural resources using standard pedestrian transects. Transects were spaced at 30 meter intervals per Texas State Historic Preservation Office (SHPO) guidelines. If archaeological materials are found, the area around the find is intensively surveyed for additional materials. Once the limit of the material is determined, the find is mapped, photographed, and a State of Texas Site Data Form completed. The location of all finds is recorded with a Trimble Geoexplorer XT GPS unit with submeter accuracy. Texas guidelines require shovel probes where ground visibility is less than 30%. The ground visibility at the current project site was less than 10% and in most cases less than 5%. Shovel probes were not excavated at the current project site due to the highly disturbed nature of the soils at the site and the very low probability for intact subsurface cultural materials.

Historic structures and buildings were identified through a records search of the Texas Atlas online database and a vehicular reconnaissance survey of the areas surrounding the site. If potential historic structures or buildings were identified, a search of courthouse records was conducted to ascertain a construction date. Historic structures and buildings identified were recorded per Texas SHPO guidelines.

Results

The project area was found to be highly disturbed from former structures, road ways, parking lots, and activities that had occurred at it in the recent past. Fifteen features were noted in the project area (Figure 4). The features noted included foundations (Feature 1), concrete slabs (Features 2, 6, 7, 8 & 9), piles of concrete (Feature 5), remnants of a small pond with a low berm surrounding it (Feature 3), remnants of a hogwire fence line (Feature 4), asphalt roadways/paths (Features 12 & 15), a large asphalt pad (Feature 14), a disturbed area of unknown origin (Feature 11), and vehicle tracks (Feature 13). A buried town Resaca cuts east to west across the south end of the property. A search of an aerial photograph archive through the U.S. Geological Survey yielded a 1970 photograph showing several large buildings occupying much of the western portion of the project area. The asphalt pad is shown on the south side of a large building and the pond area is shown in the eastern portion of the property. Much of the remainder of the property appears to be disturbed, particularly at the southeast end (Figure 5). No sites or isolated finds were identified on the surface and no historic buildings were found on the property or in the immediately surrounding area.

Recommendations

Cultural resource clearance is recommended for the property. No cultural materials were found during the surface inventory and the potential for subsurface materials is considered very low given the number and degree of the past disturbances that have occurred on it. No historic structures or buildings are present on the site or in the surrounding area. The proposed project will have no effect on any known historic properties and is unlikely to have an effect on any unknown properties as well.

References Cited

The Handbook of Texas Online. 2009. Cameron County.
http://wwww.tshaonline.org/handbook/online/articles/CC/hcc4.html

The Handbook of Texas Online. 2009. Brownsville.
http://www.tshaonline.org/handbook/online/articles/BB/hdb4.html

Legend

- site boundary
- asphalt pad
- pond-berm
- disturbed area
- line feature
- point feature

Figure 4: Project Area
Brownsville, Texas
USGS 7.5' East Brownsville Quad (1995)
Cameron County, Texas
1:3,000

0 40 80 120 160 Meters

Figure 5: 1970 aerial photograph depicting large building complex occupying western portion of property. The small pond noted during survey in the northeast portion of the property is located underneath "Cameron" and "TX" labels in center of photo. Note disturbances over remainder of property, especially in lower right (southeast end of property).

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

February 13, 2009

RECEIVED
FEB 20 2009
FISH & WILDLIFE SERVICE
CORPUS CHRISTI, TX

Reply to the Attention of the Environmental Office

Mr. Allen Strand, Field Supervisor
U.S. Fish and Wildlife Service
Corpus Christi, Texas Ecological Services Field Office
6300 Ocean Drive, #5837
Corpus Christi, Texas 78412-5837

Dear Mr. Strand:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, Texas conduct training exercises simultaneously. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 53,018 square feet.

Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

A search of the U.S. Fish and Wildlife Service's website indicated 13 Federally sensitive species could potentially occur within Cameron County. Table 1 displays those species, their preferred habitat, and their potential to occur within or near the project site. No Critical Habitat has been designated for these species within Cameron County. Additionally, no suitable habitat for any of these species was observed on or near the project site. Enclosure B is an aerial photograph showing the disturbed nature of the site and adjacent development. In addition to

these Federal species, the Texas Parks and Wildlife Department indicated that 82 rare, threatened, and endangered species are known to or could occur in Cameron County. However, only three have the potential to occur within the project area: Eskimo curlew (*Numenius borealis*), white-lipped frog (*Leptodactylus fragilis*), and Texas Botteri's sparrow (*Aimophila botterii texana*). None of these species were observed during the biological surveys and, due to the high levels of disturbance, it is very unlikely that any of these species occur within the project site.

Table 1. Federally Listed Species Potentially Occurring Within Cameron County, Texas

Common/Scientific Name	Federal Status	Habitat	Potential to occur within Project Site
BIRDS			
Brown pelican (*Pelecans occidentalis*)	Endangered	Small, isolated coastal islands that are safe from predators such as raccoons and coyotes; nest on mud banks and spoil islands covered with woody vegetation.	No – no suitable habitat and nesting sites at or near the project site.
Piping plover (*Charadrius melodus*)	Threatened	In Texas, primarily on intertidal beaches with sand and/or mud flats with no or very sparse vegetation.	No – no suitable habitat and nesting sites at or near the project site.
Northern aplomado falcon (*Falco femoralis septentrionalis*)	Endangered	Inhabit areas of open grassland, savanna, and shrub-steppe from tropical lowlands up to 12,000 feet.	No – not likely due to lack habitat and nesting sites.
REPTILES			
Green sea turtle (*Chelonia mydas*)	Threatened	Warm tropical, shallow coastal waters.	No – no coastal waters at or near the project site.
Hawksbill sea turtle (*Eretmochelys imbricata*)	Endangered	The most tropical of all sea turtles; found near coral reefs and rocky outcroppings in tropical, shallow coastal waters.	No – no coastal waters at or near the project site.
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered	Warm tropical, shallow coastal waters with sandy or muddy bottoms rich in crustaceans.	No – no coastal waters at or near the project site.
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Highly oceanic, utilize coastal waters only during breeding season.	No – no coastal waters at or near the project site.
Loggerhead sea turtle (*Ceretta caretta*)	Threatened	Coastal tropical and subtropical waters, ventures into temperate waters to boundaries of warm currents, but prefers coastal bays, also found in coastal streams, creeks, and open ocean	No – no coastal waters at or near the project site.

Common/Scientific Name	Federal Status	Habitat	Potential to occur within Project Site
		MAMMALS	
Gulf Coast jaguarundi (*Herpailurus (=Felis) yogouaroundi cacomitli*)	Endangered	Dense, thorny scrub, especially near water	No – not likely due the lack of habitat at or near the project site.
Ocelot (*Leopardus (=Felis) pardalis*)	Endangered	Dense, thorny shrub lands of the Lower Rio Grande Valley and Rio Grande Plains. Deep, fertile clay or loamy soils are generally needed to produce suitable habitat.	No – not likely due the lack of habitat at or near the project site.
West Indian manatee (*Trichechus manatus*)	Endangered	Rivers, estuaries, and coastal areas of the southeastern US coast along Central America and the West Indies to the northern coastline of South America.	No – no riverine, estuarine, or coastal waters at or near the project site.
		PLANTS	
South Texas ambrosia (*Ambrosia cheiranthifolia*)	Endangered	Open grasslands or savannas on soils varying from clay loams to sandy loams.	No – not likely due to lack of appropriate soils at project site.
Texas ayenia (*Ayenia limitaris*)	Endangered	Found on terraces and floodplains in dense, relatively moist, subtropical riparian woodlands, with an overall canopy cover of about 95%.	No – not likely due the lack of habitat at or near the project site.

Pedestrian surveys have been completed at the preferred site and none of these Federally protected species or suitable habitat capable of supporting these species was observed at the project site. The site consists of a disturbed and undeveloped grassland containing various grasses and shrubs such as dallisgrass (*Paspalum dilatatum*), Johnsongrass (*Sorghum halepense*), Bermuda grass (*Cynodon dactylon*), crabgrass (*Digitaria* sp.), goose grass (*Eleusine indica*), and nutsedge (*Cyperus* sp.). A few small trees and shrubs,Texas ebony (*Chloroleucon ebano*), acacia (*Acacia* sp.), Mexican ash (*Fraxinus berlandieriana*), Texas palm (*Sabal palmetto*), retama (*Parkinsonia aculeate*) and honey mesquite (*Prosopis glandulosa*) trees are scattered throughout the site. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (see Enclosure B). Photographs taken during the field surveys are presented in Enclosure C.

Wildlife species observed during the field investigation included northern mockingbird (*Mimus polyglottos*) and Couch's kingbirds (*Tyrannus couchii*).

Based on these surveys and the existing conditions at and surrounding the preferred site, we have determined that the proposed action would have no effect on Federal or state-listed species. Because of the limited size of the proposed construction footprint and the low quality of habitat at the site, insignificant impacts to general wildlife populations would occur as a result of the proposed construction and operation of the AFRC.

We respectfully request that you provide a written concurrence with our determination. Your prompt attention and cooperation would be greatly appreciated. If you have questions or concerns about this project, please do not hesitate to call me at (501) 771-7992.

Sincerely,

James Wheeler II

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures

Your letter indicates you have determined that the proposed action would have no effect on federally listed species. Therefore, the Service believes your agency has complied with section 7(a)(2) of the Endangered Species Act by making a determination. No further action is required from this office.

Date: 3-5-09

Consultation #: 21410-2009-I-0133

Approved By: Ernesto Reyes Jr.
for Allan M. Strand, Field Supervisor
U.S. Fish and Wildlife Service, Corpus Christi Ecological Services Office

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

March 16, 2009

Reply to the Attention of the Environmental Office

Mr. Anthony Street
President
Tonkawa Tribe of Indians of Oklahoma
P.O. Box 70
Tonkawa, Oklahoma 74653

Dear President Street:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

An earlier letter we sent, dated January 24, 2008 only mentioned two sites. That was incorrect. There are actually three locations to be considered. The corrected information follows.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, TX conduct training exercises simultaneously. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 54,651 square feet.

Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (Enclosure B).

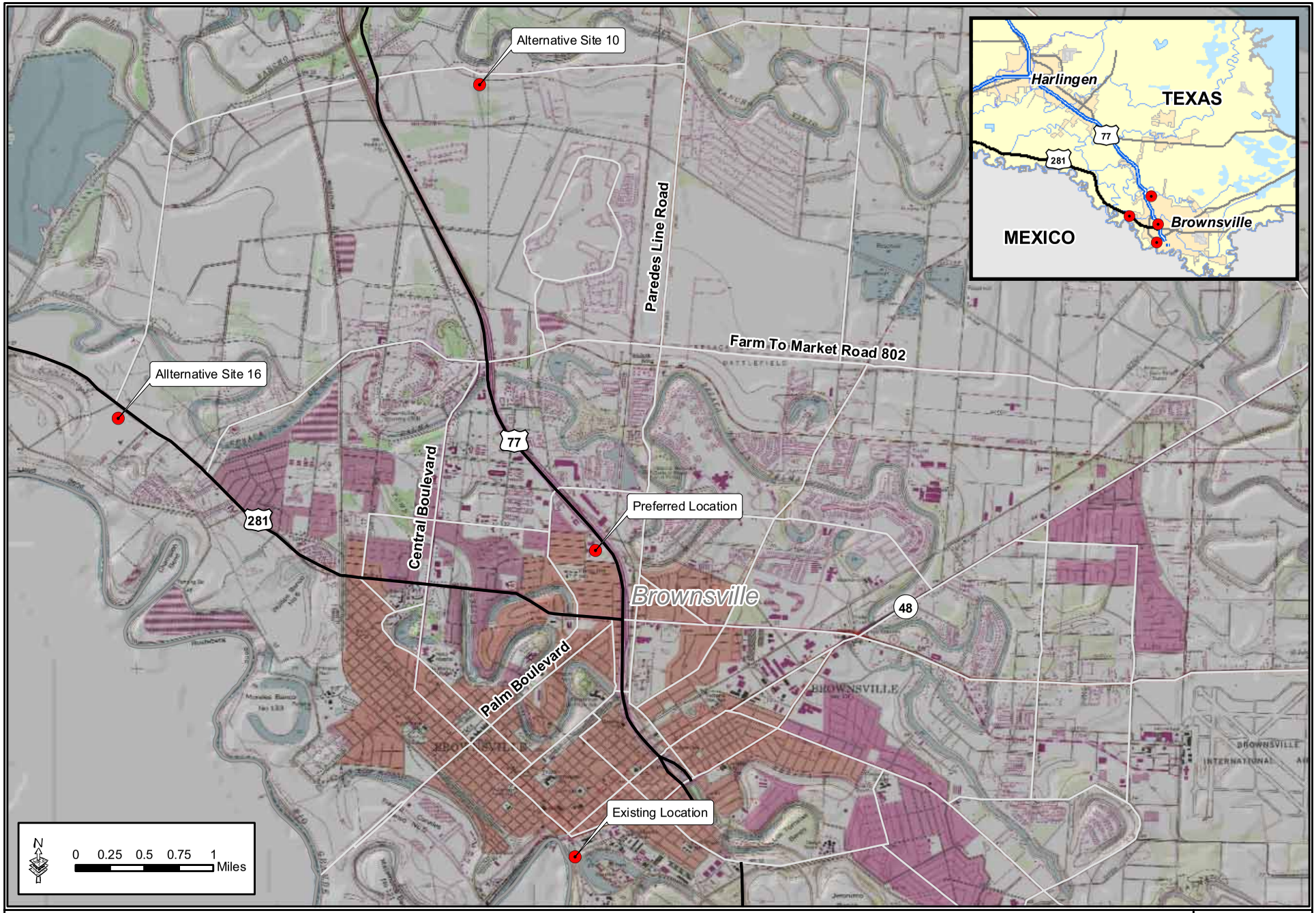
After a thorough search of the archaeological, historic building, and burial indices using the online Texas Archaeological Sites Atlas, we have determined that the preferred project location is 0.1 mile from the site boundary of the Resca de la Palma Battlefield (Site 41CF3) and 0.5 mile from the National Register District of the same name. No other recorded sites or historic structures have been reported on or within 1 mile of the preferred project property.

This notification is required by the National Historic Preservation Act of 1966 (NHPA), as amended, and Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. The Army wishes to ensure that issues of concern to your Tribe are addressed, and welcomes any comments you may have about the proposed AFRC construction. If you have questions or concerns about this project, please contact Mr. James Wheeler, II, Environmental Manager, 90th Regional Readiness Command at (501) 771-7992, within thirty (30) days of receipt of this letter.

Sincerely,

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

March 16, 2009

Reply to the Attention of the Environmental Office

Mr. Wallace Coffey
Chairperson
Comanche Nation
HC32 – Box 1720
Lawton, Oklahoma 73502

Dear Chairman Coffey:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

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Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (Enclosure B).

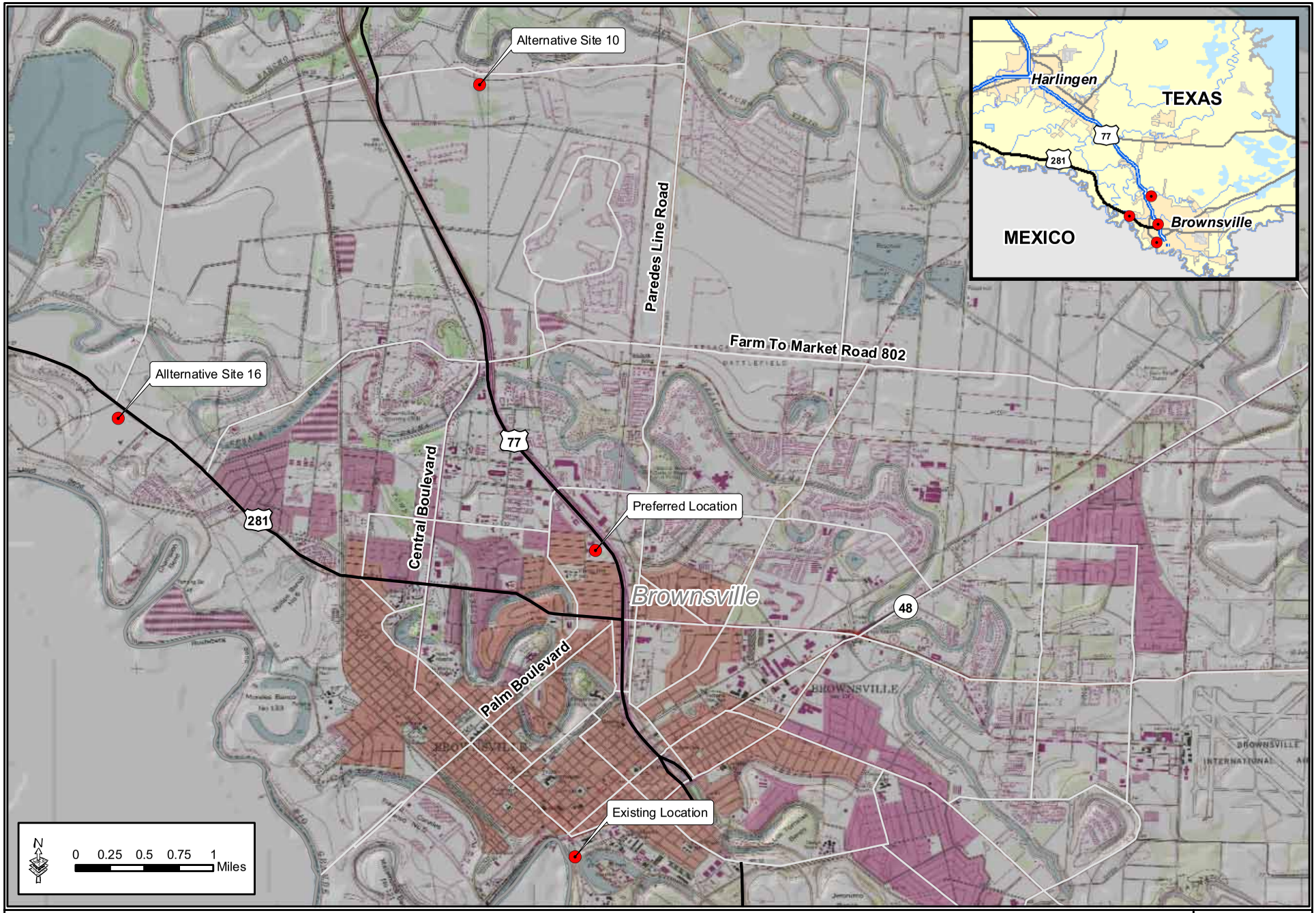
After a thorough search of the archaeological, historic building, and burial indices using the online Texas Archaeological Sites Atlas, we have determined that the preferred project location is 0.1 mile from the site boundary of the Resca de la Palma Battlefield (Site 41CF3) and 0.5 mile from the National Register District of the same name. No other recorded sites or historic structures have been reported on or within 1 mile of the preferred project property.

This notification is required by The National Historic Preservation Act of 1966 (NHPA), as amended, and Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. The Army wishes to ensure that issues of concern to your Tribe are addressed, and welcomes any comments you may have about the proposed AFRC construction. If you have questions or concerns about this project, please contact Mr. James Wheeler, II, Environmental Manager, 90th Regional Readiness Command at (501) 771-7992, within thirty (30) days of receipt of this letter.

Sincerely,

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

March 16, 2009

Reply to the Attention of the Environmental Office

Mr. Nathan Tselee
Chairperson
Apache Tribe of Oklahoma
Business Committee
P.O. Box 1220
Anadarko, Oklahoma 73005

Dear Chairman Tselee:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

An earlier letter we sent, dated January 24, 2008 only mentioned two sites. That was incorrect. There are actually three locations to be considered. The corrected information follows.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, TX conduct training exercises simultaneously. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 54,651 square feet.

Three locations, the preferred site and two alternate sites in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (Enclosure B).

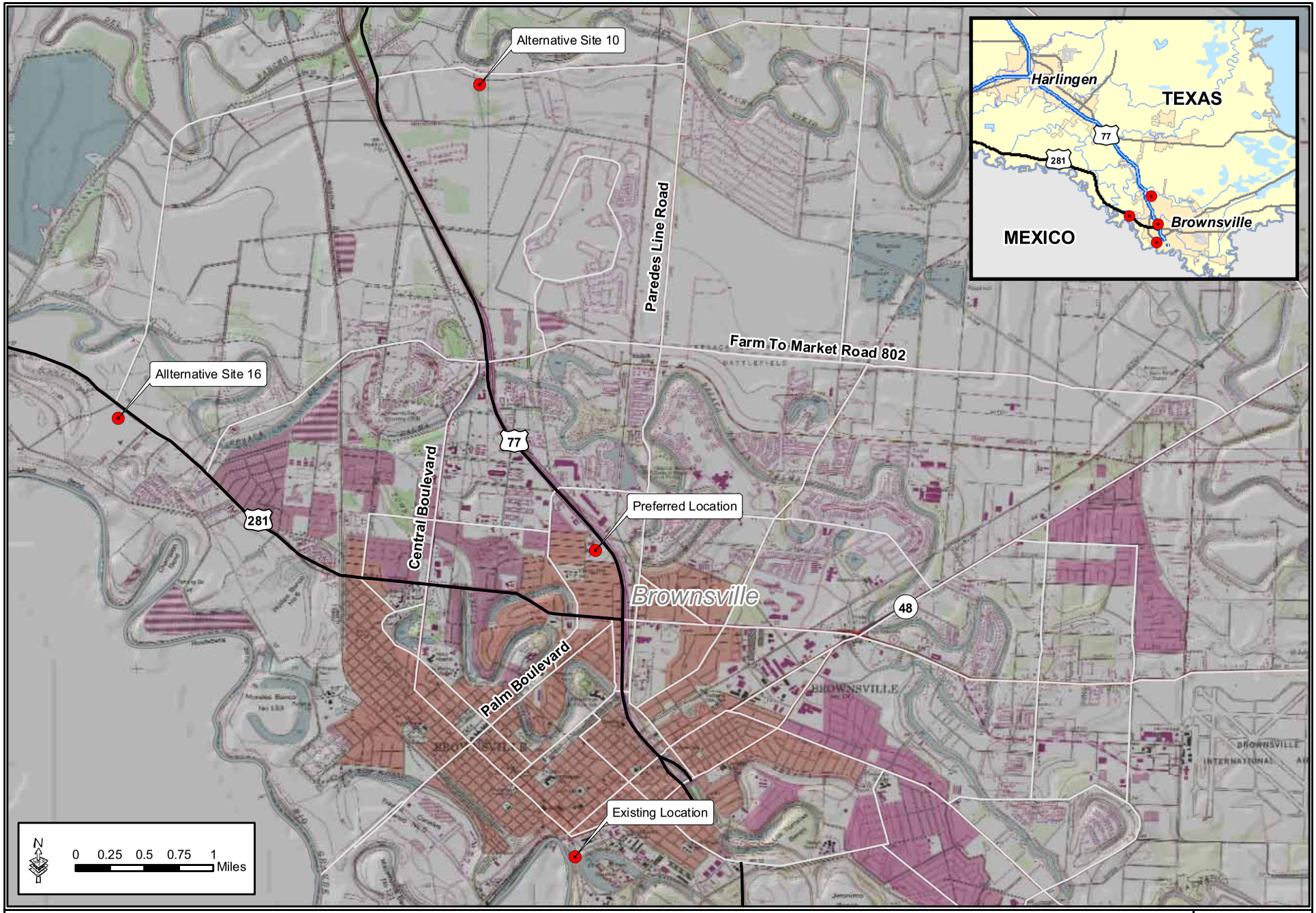
After a thorough search of the archaeological, historic building, and burial indices using the online Texas Archaeological Sites Atlas, we have determined that the preferred project location is 0.1 mile from the site boundary of the Resca de la Palma Battlefield (Site 41CF3) and 0.5 mile from the National Register District of the same name. No other recorded sites or historic structures have been reported on or within 1 mile of the preferred project property.

This notification is required by the National Historic Preservation Act of 1966 (NHPA), as amended, and Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. The Army wishes to ensure that issues of concern to your Tribe are addressed, and welcomes any comments you may have about the proposed AFRC construction. If you have questions or concerns about this project, please contact me at (501) 771-7992, within thirty (30) days of receipt of this letter.

Sincerely,

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosures



Enclosure A

GSRC

January 2009

Enclosure B

GSRC

January 2009

TEXAS PARKS & WILDLIFE
Life's better outside.™

Commissioners

Peter M. Holt
Chairman
San Antonio

T. Dan Friedkin
Vice-Chairman
Houston

Mark E. Bivins
Amarillo

J. Robert Brown
El Paso

Ralph H. Duggins
Fort Worth

Antonio Falcon, M.D.
Rio Grande City

Karen J. Hixon
San Antonio

Margaret Martin
Boerne

John D. Parker
Lufkin

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

March 19, 2009

Department of the Army
Commander, 90th Regional Readiness
ATTN: Environmental Office (James Wheeler II)
8000 Camp Robinson Road
North Little Rock, AR 72118

RE: Proposed construction of Armed Forces Reserve Center in Brownsville, Cameron County, Texas.

Dear Mr. Wheeler:

This letter is in response to your request for concurrence that the construction and operation of the project referenced above would result in insignificant impacts to general wildlife populations. The proposed project consists of constructing a U.S. Armed Forces Reserve Center (AFRC) in Brownsville, Cameron County, Texas. The preferred construction site is located on a tract of land approximately 20 acres in size along U.S. Highway 77 in Brownsville. Construction would include the AFRC, parking areas, vehicle and equipment maintenance areas, storage facilities and storm water detention ponds. The total project would encompass approximately 53,000 square feet (1.2 acres). Two alternate sites for the Center are located north and northwest of Brownsville near US 77 and US 281, respectively. The preferred site consists primarily of introduced grasses with a few shrubs and trees concentrated near the southeast corner of the property.

Texas Parks and Wildlife Department (TPWD) has reviewed the information provided. Based on the project as presented and the information provided, TPWD concur that there should be minimal impacts on fish, wildlife and habitat resources as a result of constructing the proposed project.

A review of presently known Texas Natural Diversity Database (TXNDD) records for the general project area indicate a number of historic records (>50 years old). Of these, suitable habitat remains present at the site for three of the species; black-striped snake (*Coniophanes imperialis*), sheep frog (*Hypopachus variolosus*) and Mexican treefrog (*Smilisca baudinii*). All three of these species are nocturnal, adapted to arid areas and can be edificial (*i.e.*, living around buildings and under debris) and can be difficult to detect during surveys. Printouts for these occurrence records are included for your planning reference.

Due to the tract of land being isolated, with no connective corridors linking it to other areas of suitable habitat, the occurrence of other listed species is unlikely.

Please be aware that information from the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Absence of information in an area does not imply that a species is absent from that area.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.state.tx.us

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presences, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and **cannot be used as presence/absence data**. They represent species that could potentially be in your project area. This information cannot be substituted for on-the-ground surveys.

Also, please be aware that many bird species, while not documented in the TXNDD, are known to reside in or migrate through the area. Migratory birds are federally protected by the Migratory Bird Treaty Act (MBTA) which provides for a year round closed season for non-game birds and prohibits the taking of migratory bird nests and eggs, except as permitted by the U.S. Fish and Wildlife Service. When preparing the site for construction, TPWD recommends scheduling any vegetation clearing or trampling outside of the April 1-July 15 migratory bird nesting season in order to fully comply with the MBTA.

Because the proposed structure, parking and storage facilities would occupy less than 10% of the property, TPWD recommends avoiding the removal of the trees in the southeastern corner of the property, if possible. The trees represent established, native landscaping adapted to the environmental conditions of south Texas and may provide cover, nesting, and feeding sites for wildlife adapted to urban settings. Designing portions of the facility to incorporate the existing trees into the landscape will minimize negative impacts to wildlife and can enhance the aesthetics of the site. Additionally, preserving existing native vegetation can assist in fulfilling the requirements of Federal agencies to comply with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping.

Please contact me at (361) 825-3240 if you have any questions regarding our comments.

Sincerely,

Russell Hooten

Russell Hooten
Wildlife Habitat Assessment Program
Wildlife Division

/rh 13819

Attachments

Code Key for Printouts from
Texas Parks and Wildlife Department
Texas Natural Diversity Database (TXNDD)

This information is for your assistance only; due to continuing data updates, vulnerability of private land to trespass and of species to disturbance or collection, **please refer all requesters to our office to obtain the most current information available.** Also, please note, identification of a species in a given area does not necessarily mean the species currently exists at the point or area indicated.

LEGAL STATUS AND CONSERVATION RANKS

FEDERAL STATUS (as determined by the US Fish and Wildlife Service)

LE	Listed Endangered
LT	Listed Threatened
PE	Proposed to be listed Endangered
PT	Proposed to be listed Threatened
PDL	Proposed to be Delisted (Note: Listing status retained while proposed)
SAE, SAT	Listed Endangered on basis of Similarity of Appearance, Listed Threatened on basis of Similarity of Appearance
DL	Delisted Endangered/Threatened
C	Candidate. USFWS has substantial information on biological vulnerability and threats to support proposing to list as threatened or endangered. Data are being gathered on habitat needs and/or critical habitat designations.
C*	C, but lacking known occurrences
C**	C, but lacking known occurrences, except in captivity/cultivation
XE	Essential Experimental Population
XN	Non-essential Experimental Population
Blank	Species is not federally listed

TX PROTECTION (as determined by the Texas Parks and Wildlife Department)

E	Listed Endangered
T	Listed Threatened
Blank	Species not state-listed

GLOBAL RANK (as determined by NatureServe)

G1	Critically imperiled globally, extremely rare, typically 5 or fewer viable occurrences
G2	Imperiled globally, very rare, typically 6 to 20 viable occurrences
G3	Very rare and local throughout range or found locally in restricted range, typically 21 to 100 viable occurrences
G4	Apparently secure globally
G5	Demonstrably secure globally
GH	Of historical occurrence through its range
GU	Possibly in peril range-wide, but status uncertain
G#G#	Ranked within a range as status uncertain
GX	Apparently extinct throughout range
Q	Rank qualifier denoting taxonomic assignment is questionable
#?	Rank qualifier denoting uncertain rank
C	In captivity or cultivation only
G#T#	"G" refers to species rank; "T" refers to variety or subspecies rank

STATE (SUBNATIONAL) RANK (as determined by the Texas Parks and Wildlife Department)

S1	Critically imperiled in state, extremely rare, vulnerable to extirpation, typically 5 or fewer viable occurrences
S2	Imperiled in state, very rare, vulnerable to extirpation, typically 6 to 20 viable occurrences
S3	Rare or uncommon in state, typically 21 to 100 viable occurrences
S4	Apparently secure in State
S5	Demonstrably secure in State
S#S#	Ranked within a range as status uncertain
SH	Of historical occurrence in state and may be rediscovered
SU	Unrankable – due to lack of information or substantially conflicting information
SX	Apparently extirpated from State
SNR	Unranked – State status not yet assessed
SNA	Not applicable – species id not a suitable target for conservation activities
?	Rank qualifier denoting uncertain rank in State

Revised 1 Apr 2008

ELEMENT OCCURRENCE RECORD

Element Occurrence Record (EOR) Spatial and tabular record of an area of land and/or water in which a species, natural community, or other significant feature of natural diversity is, or was, present and associated information; may be a single contiguous area or may be comprised of discrete patches or subpopulations

Occurrence # Unique number assigned to each occurrence of each element when added to the NDD

LOCATION INFORMATION

Watershed Code Eight digit numerical code determined by US Geological Survey (USGS)

Watershed Name of watershed as determined by USGS

Quadrangle Name of USGS topographical map

Directions Directions to geographic location where occurrence was observed, as described by observer or in source

SURVEY INFORMATION

First/Last Observation Date a particular occurrence was first/last observed; refers only to species occurrence as noted in source and does not imply the first/last date the species was present

Survey Date If conducted, date of survey

EO Type State rank qualifiers:

- **M** Migrant – species occurring regularly on migration at staging areas, or concentration along particular corridors; status refers to the transient population in the State
- **B** Qualifier indicating basic rank refers to the breeding population in State
- **N** Qualifier indicating basic rank refers to the non-breeding population in State

EO Rank

A	Excellent	**AI**	Excellent, Introduced
B	Good	**BI**	Good, Introduced
C	Marginal	**CI**	Marginal, Introduced
D	Poor	**DI**	Poor, Introduced
E	Extant/Present	**EI**	Extant, Introduced
H	Historical/No Field Information	**HI**	Historical, Introduced
X	Destroyed/Extirpated	**XI**	Destroyed, Introduced
O	Obscure	**OI**	Obscure, Introduced

EO Rank Date Latest date EO rank was determined or revised

Observed Area Acres, unless indicated otherwise

COMMENTS

Description General physical description of area and habitat where occurrence is located, including associated species, soils, geology, and surrounding land use

Comments Comments concerning the quality or condition of the element occurrence at time of survey

Protection Comments Observer comments concerning legal protection of the occurrence

Management Comments Observer comments concerning management recommendations appropriate for occurrence conservation

DATA

EO Data Biological data; may include number of individuals, vigor, flowering/fruiting data, nest success, behaviors observed, or unusual characteristic, etc.

SITE

Site Name Title given to site by surveyor

MANAGED AREA INFORMATION

Managed Area Name Place name or (on EOR printout) name of area when the EO is located within or partially within an area identified for conservation, such as State or Federal lands, nature preserves, parks, etc.

Alias Additional names the property is known by

Acres Total acreage of property, including non-contiguous tracts

Manager Contact name, address, and telephone number for area or nearest area land steward

Please use one of the following citations to credit the source for the printout information:

Texas Natural Diversity Database. [year of printouts]. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of printouts].

Texas Natural Diversity Database. [year of printouts]. Element occurrence printouts for [scientific name] *records # [occurrence number(s)]. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of printouts]. *Use of record #'s is optional.

Element Occurrence Record

Scientific Name: *Coniophanes imperialis* **Occurrence #:** 10 **Eo Id:** 6261

Common Name: Black-striped Snake **TX Protection Status:** T

Global Rank: G4G5 **State Rank:** S2

Location Information:

Latitude: **Longitude:**

Watershed Code:	Watershed Description:
12110208	South Laguna Madre

County Code:	County Name:	Mapsheet Code:	Mapsheet Name:	State:
TXCAME	Cameron	25097-H5	West Brownsville	TX
		25097-H4	East Brownsville	TX

Directions:

BROWNSVILLE, JUNCTION WITH WASHINGTON AND MILITARY

Survey Information:

First Observation: 1932-10-25 **Survey Date:** **Last Observation:** 1952-04-08

Eo Type: **EO Rank:** **EO Rank Date:**

Observed Area (acres):

Comments:

General Description:

Comments: COLLECTED 25 OCTOBER AND 8 APRIL

Protection Comments:

Management Comments:

Data:

EO Data:

Site:

RIO GRANDE VALLEY MEGASITE

Managed Area:

Managed Area Name: **Managed Area Type:**

Element Occurrence Record

Reference:

Full Citation:

Specimen:

TEXAS A & M UNIVERSITY, TEXAS COOPERATIVE WILDLIFE COLLECTION. NO DATE. UNKNOWN COLLECTOR, SPECIMEN # 55448 TCWC.

UNIVERSITY OF MICHIGAN, MUSEUM OF ZOOLOGY. 1932. COLLECTOR: KIN???, SPECIMEN # 75816 UMMZ. 25 OCTOBER 1932.

UNIVERSITY OF MICHIGAN, MUSEUM OF ZOOLOGY. 1952. COLLECTOR: MAR???, SPECIMEN # 105235 UMMZ. 8 APRIL 1952.

Element Occurrence Record

Scientific Name: *Smilisca baudinii* **Occurrence #:** 1 **Eo Id:** 3594

Common Name: Mexican Treefrog **TX Protection Status:** T

Global Rank: G5 **State Rank:** S3

Location Information:

Latitude: **Longitude:**

Watershed Code:	Watershed Description:
12110208	South Laguna Madre

County Code:	County Name:	Mapsheet Code:	Mapsheet Name:	State:
TXCAME	Cameron	25097-H4	East Brownsville	TX
		25097-H5	West Brownsville	TX
		25097-G4	Southmost	TX

Directions:

BROWNSVILLE

Survey Information:

First Observation: 1920-07-19 **Survey Date:** **Last Observation:** 1972-07-19

Eo Type: **EO Rank:** **EO Rank Date:**

Observed Area (acres):

Comments:

General Description:

Comments: COLLECTED 19 JULY (UMMZ)

Protection Comments:

Management Comments:

Data:

EO Data:

Site:

RIO GRANDE VALLEY MEGASITE

Managed Area:

Managed Area Name: **Managed Area Type:**

Element Occurrence Record

Reference:

Full Citation:

ELLIOTT, LEE. 1994. MEMORANDUM TO DORINDA SULLIVAN DATED DECEMBER 2, 1994 CONCERNING TEXAS A& M-KINGSVILLE VERTEBRATE SPECIMENS CATALOGUE.

Specimen:

TEXAS A & M UNIVERSITY-KINGSVILLE--VERTEBRATE COLLECTION. 1972. UNKNOWN COLLECTOR, SPECIMEN # 2338 AI. 19 JULY 1972.

UNIVERSITY OF MICHIGAN MUSEUM OF ZOOLOGY. 1920. COLLECTOR: CAM???, SPECIMEN # 5412, 5413, 6869 UMMZ. 19 JULY 1920.

Element Occurrence Record

Scientific Name: *Hypopachus variolosus* **Occurrence #:** 3 **Eo Id:** 3742

Common Name: Sheep Frog **TX Protection Status:** T

Global Rank: G5 **State Rank:** S2

Location Information:

Latitude: **Longitude:**

Watershed Code: 12110208

Watershed Description: South Laguna Madre

County Code:	County Name:	Mapsheet Code:	Mapsheet Name:	State:
TXCAME	Cameron	25097-H4	East Brownsville	TX

Directions:

BROWNSVILLE, 2 MILES NORTHEAST OF POST OFFICE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1955-09-05

Eo Type: **EO Rank:** **EO Rank Date:**

Observed Area (acres):

Comments:

General Description:

Comments: COLLECTED 5 SEPTEMBER (UMMZ 114372)

Protection Comments:

Management Comments:

Data:

EO Data:

Site:

RIO GRANDE VALLEY MEGASITE

Managed Area:

Managed Area Name: **Managed Area Type:**

Reference:

Element Occurrence Record

Full Citation:

Specimen:

University of Michigan, Museum of Zoology. 1955. T.J. Cohn, Catalog # 114372 UMMZ. 5 September 1955.

Element Occurrence Record

Scientific Name: *Coniophanes imperialis* **Occurrence #:** 8 **Eo Id:** 142

Common Name: Black-striped Snake **TX Protection Status:** T

Global Rank: G4G5 **State Rank:** S2

Location Information:

Latitude: **Longitude:**

Watershed Code: 12110208

Watershed Description: South Laguna Madre

County Code:	County Name:	Mapsheet Code:	Mapsheet Name:	State:
TXCAME	Cameron	25097-H4	East Brownsville	TX

Directions:

1 MILE NORTH OF BROWNSVILLE

Survey Information:

First Observation: **Survey Date:** **Last Observation:**

Eo Type: **EO Rank:** **EO Rank Date:**

Observed Area (acres):

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Site:

RIO GRANDE VALLEY MEGASITE

Managed Area:

Managed Area Name: **Managed Area Type:**

Reference:

Element Occurrence Record

Full Citation:

Specimen:

Texas A & M University, Texas Cooperative Wildlife Collection. No Date. Unknown Collector, Specimen # 5997, 5998, 5999, 5600, 5601, 5602, 5603 TCWC.

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205

February 13, 2009

Reply to the Attention of the Environmental Office

RECEIVED
FEB 23 2009
Texas Historical Commission

Mr. F. Lawrence Oaks
State Historic Preservation Officer
ATTN: Mr. Bill Martin
Texas Historical Commission
1511 Colorado Street
Austin, Texas 78701

Dear Mr. Oaks:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the U.S. Army Reserve Center (USARC) in Brownsville, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Brownsville, Texas.

The new facility shall have the capability to accommodate up to 200 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC and Texas National Guard units from Brownsville, Texas, if the state decides to relocate these units. To accommodate the proposed AFRC, a new 45,395 square foot building is proposed to be constructed. In addition, parking, vehicle and equipment maintenance, storm water detention ponds and storage facilities would also be constructed. Total building space proposed for construction at the AFRC is 54,651 square feet.

Three locations, the preferred site and two alternate sites (Alternative Site 16 and 10) in Brownsville, Texas, were identified as suitable for the construction of the AFRC (Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. The preferred site is surrounded by residential properties to the south and west and is bounded by Los Ebanos Boulevard and State Highway 83 to the north and east (Enclosure B).

After a thorough search of the archaeological, historic building, and burial indices using the online Texas Archaeological Sites Atlas, we have determined that the preferred project location is 0.1 mile from the site boundary of the Resca de la Palma Battlefield (Site 41CF3) and 0.5 mile from the National Register District of the same name. No other recorded sites or historic structures have been reported on or within 1 mile of the preferred project property.

No cultural resources were identified during pedestrian survey or subsurface testing of the preferred site. In addition, a pedestrian reconnaissance was performed of the view shed of the preferred tract. No structures or buildings that meet the 50 year age minimum for historic structures. As a result, no impacts to cultural resources are anticipated from the implementation of the proposed action alternative. A copy of the cultural resources report is enclosed for your review and comment (Enclosure C).

The construction and operation of the proposed AFRC at the alternative sites would be expected to result in similar impacts as described above for the preferred site. However, cultural resources field surveys were not conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If Alternative Site 16 or 10 are ultimately selected, cultural resources surveys and supplemental Section 106 coordination would be required to fully assess the potential impacts to these resources.

If activities were to impact cultural resources not previously identified, we will immediately inform you of the discovery and to invite you to assist in the development of procedures for minimizing adverse impacts to the newly discovered cultural resources.

We request your concurrence on our determination that there are "no historic properties affected" by building the proposed AFRC, Brownsville. If you have questions or concerns about this project, please contact me at (501) 771-7992, at your earliest convenience.

NO HISTORIC
PROPERTIES AFFECTED
PROJECT MAY PROCEED
By William A. Martin
for F. Lawerence Oaks
State Historic Preservation Officer
Date 3/30/09
Track#

Sincerely,

James Wheeler II

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures

DRAFT REPORT
ACCEPTABLE
Please submit 20 final report copies
by William A. Martin
for F. Lawerence Oaks
State Historic Preservation Officer
Date 3/30/09
Track#

APPENDIX C
Economic Impact Forecast System

Analysis of Socioeconomic Effects For Brownsville Reserve Center Realignment for BRAC05

Introduction

The socioeconomic analysis requirements of NEPA have been established over the years through successful early NEPA litigation ("McDowell vs Schlesinger", US District Court, Western District of Missouri, Western Division, No. 75-CV-234-W-4 (June 19,1975) and "Breckinridge vs Schlesinger", US District Court, Eastern District of Kentucky, No. 75-100 (October 31,1975)), as well as the practical need for communication and collaboration with affected communities. The social and economic effects of Base Realignment and Closure (BRAC) actions are especially relevant and important, as these issues are often the source of community concerns and subsequent controversies.

The Economic Impact Forecast System (EIFS) and the Hierarchical Approach.

The Model:

The Economic Impact Forecast System (EIFS) (Huppertz, Claire E.; Bloomquist, Kim M.; Barbehenn, Jacinda M.; EIFS 5.0 Economic Impact Forecast System, User's Reference Manual; USACERL Technical Report TA-94/03; July 1994.) has been a mainstay of Army NEPA practice since its initial development and implementation in the mid-70s. EIFS provides a mechanism to estimate impacts, and ascertain the "significance" of projected impacts, using the Rational Threshold Value (RTV) technique. This analysis and determination can be readily documented, and if significance thresholds are not exceeded, the analysis can be completed. EIFS was designed to address NEPA applications, providing a "two-tier" approach to the process; (1) a simple and quick aggregate model (sufficient to ascertain the overall magnitude of impacts) and (2) a more detailed, sophisticated input-output (I-O) model to further analyze impacts that appear significant, in NEPA terms, and worthy of additional expenditures and analyses. This "two-tier" approach is consistent with the two common levels of NEPA analysis, the Environmental Assessment (EA) and the Environmental Impact Statement (EIS). EIFS has facilitated efficient and effective completion of such analyses for approximately 3 decades.

Complete documentation of the model, its development, and applicable theoretical underpinnings is available in numerous publications:

Huppertz, Claire E.; Bloomquist, Kim M.; Barbehenn, Jacinda M.; EIFS 5.0 Economic Impact Forecast System, User's Reference Manual; USACERL Technical Report TA-94/03; July 1994.

Isard, W., Methods of Regional Analysis, MIT Press, 1960.

Isard, W. and Langford,T., Regional Input-Output Study: Recollections, Reflections, and Diverse Notes on the Philadelphia Experience, MIT Press, 1971.

Isserman, A., "The Location Quotient Approach to Estimating Regional Economic Impacts", AIP Journal, January, 1977, pp. 33-41.

Isserman, A., "Estimating Export Activity in a Regional Economy: A Theoretical and Empirical Analysis of Alternative Methods", International Regional science Review, Vol. 5, 1980, pp. 155-184.
Leigh, R., " The Use of Location Quotients in Urban Economic Base Studies", Land Economics, Vol 46, May, 1970, pp 202-205.
Mathur, V.K. and Rosen, H.S. , "Regional Employment Multiplier: A new Approach", Land Economics, Vol 50, 1974, pp 93-96.
Mayer, W. and Pleeter, S., "A Theoretical Justification for the Use of Location Quotients", Regional Science and Urban Economics, Vol 5, 1975, pp 343-355.
Robinson, D.P., Hamilton, J.W., Webster, R.D., and Olson, M.J., Economic Impact Forecast System (EIFS) II: User's Manual, Updated Edition, Technical Report N-69/ADA144950, U.S. Army Construction Engineering Research Lab (USACERL),1984.
Robinson, D.P. and Webster,R.D., Enhancements to the Economic Impact Forecast System (EIFS), Technical Report N-175/ADA142652, USACERL, April, 1984.
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These efforts reflect development of a tool for specific NEPA application, following the successful NEPA litigation referenced in the Introduction. As EIFS has been used for Army NEPA analyses, the results of EIFS analyses have been reviewed by stakeholder (affected community) representatives, and, as a result of BRAC application, twice reviewed by the Government Accounting Office (GAO). During such reviews, the analyses and resultant decisions were upheld, and EIFS was lauded as a uniform (non-arbitrary and non-capricious) approach to such requirements. Drawing from a national, uniform database, and using a common, systematic approach, EIFS allowing the improved comparison of project alternatives (the heart of NEPA analysis), and provides comparable analyses across the U.S.

NEPA Process Improvement:

Since NEPA was implemented, it has been commonly criticized as expensive and time-consuming. While these criticisms have been often justified, the President's Council on Environmental Quality (CEQ) has actively promoted NEPA process improvements; first

in the publication of the CEQ NEPA regulations (CEQ, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, Reprint, 40 CFR Parts 1500-1508, Executive Office of the President, Council on Environmental Quality, 1992.), and, more recently, through a NEPA anniversary introspective (CEQ, The National Environmental Policy Act: A Study of its Effectiveness After Twenty-five Years, Executive Office of the President, Council on Environmental Quality, January, 1997.) and the formal CEQ NEPA Task Force (CEQ, The NEPA Task Force Report to the Council on Environmental Quality: Modernizing NEPA Implementation; September, 2003.). All three CEQ initiatives call for more "focus" on NEPA documents, eliminating the analyses of minor or unimportant issues, and focusing, instead, on those issues that should be part of an informed agency decision. The use of EIFS, and the "two-tier" approach is consistent with these CEQ recommendations.

Determining Significance:

While EIFS was being developed, communities began to question the rationale for determining the significance of socioeconomic impacts. USACERL was directed to develop a defensible procedure for such a determination, resulting in the Rational Threshold Value (RTV) technique (Webster, R.D.; and Shannon, E.; The Rational Threshold Value (RTV) Technique for the Evaluation of Regional Economic Impacts; USACERL Technical Report TR N-49/ADA055561; 1978). This technique relies on the yearly Bureau of Economic Analysis (BEA) time series data on employment, income, and population to evaluate historical trends with in a subject community (region); and uses those trends to measure the "resilience" of the local community to change, or its ability to accommodate such change. This approach has worked well when communicating with affected communities. The combined use of RTV with the EIFS model meet the two pronged approach for significance determinations, intensity and context (CEQ, 1992)

The initial EIFS implementation (USACERL, 1975) included the analysis of numerous variables: business volume, personal income, employment, government revenues and expenditures, income and employment distribution, local housing impacts, regional economic stability, school system impacts, government bond obligations, population, welfare and dependency, social control, and aesthetic considerations. These selction of these variables was based on the predictive capability of forecasting techniques and data availability. Over some 30 years of practice, pragmatism and sufficiency led to the use of sales volume, employment, personal income, and population as indicators of impacts (as a "first tier" approximation of effects). These effects can also be readily evaluated (and significance determined) using the BEA time series data. Population, important in its own right, is also a valuable indicator of other factors (e.g., impact on local government revenues and expenditures, housing, local school systems, and the change in welfare and dependency), as impacts on such variables are driven, to a large extent, by a population change.

Using BEA time series data is used to analyze the four variables for the ROI, the RTV model produces thresholds for assessing the magnitude of impacts. The RTV technique is

simple, starting with a straight line between the first year of record and the last year of record for that variable, establishing the average rate of change over time. Then, each yearly deviation from that growth rate is calculated and converted to a percentage. The largest historical changes (both increase and decrease) are used to define significance thresholds. The following figure illustrates the RTV concept:

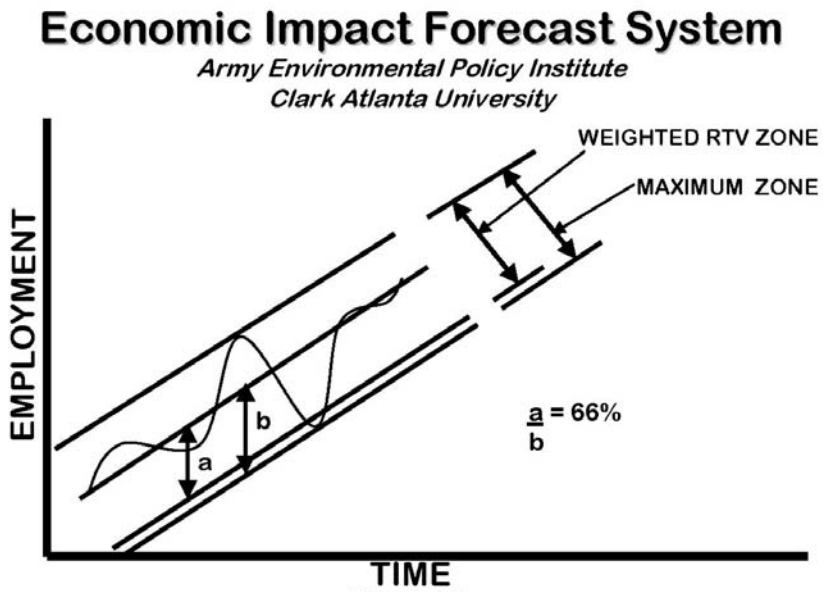


Figure 10
Visual Depiction of the RTV Technique

A "factor of safety" is applied to negative thresholds, as shown in the figure, to produce a conservative analysis; while 100% of the maximum positive thresholds is used; as indicated below:

	Increase	Decrease
Total sales volume	100 percent	75 percent
Total employment	100 percent	66 percent
Personal Income	100 percent	66 percent
Total population	100 percent	50 percent

The maximum positive historical fluctuation is used because of the positive connotations generally associated with economic growth. While economic growth can produce

unacceptable impacts and the "smart growth" concept is increasingly favored, the effects of reductions and closures are usually much more controversial. These adjustments, while arbitrary, are sensible. The negative sales volume threshold is adjusted by 75%, as sales volume impacts can be absorbed by such factors as the manipulation of inventory, new equipment, etc; and the impacts on individual workers or proprietors is indirect, if at all. Changes in employment and income, however, are impacts that immediately affect individuals; thus they are adjusted by 66%. Population is extremely important, as an indicator of other social issues, and is thus adjusted by 50%.

To adjust dollar amounts for inflation (to create "constant dollars" prior to calculations), the Consumer Price Index (CPI) is used for appropriate years, and all dollar values are adjusted to 1987 equivalents.

The main strength of the RTV approach stems from its reliance on data for each individual ROI. This approach addressed previous criticism of more simple approaches that applied arbitrary criteria to all communities. This approach establishes unique criteria, representative of local community patterns, and, while a community may not completely agree, a common frame of reference is established. Critics of the RTV technique have questioned the arbitrary selection of the maximum allowable deviations to indicate impact significance, but the process has proven workable over the years.

The Application of EIFS to the Proposed Action

To effect these analyses, the inputs to the EIFS model must be estimated. The normal EIFS inputs include:

Number of affected (moving) civilians and their salaries
Number of affected (moving) military employees and their salaries
Percentage of affected military employees living on-post
Changes in local procurement, contracting, and purchases
Definition of the multi-county region of influence (ROI)

In the case of the Brownsville Reserve Center, no change in civilian or military strength in the region will occur, given the close proximity of the existing (combining) affected sites. The only exogenous economic stimulus will be associated with the construction of some 45,400 square feet of new facilities. This will involve some $13 million dollars in construction expenditures and land acquisition.

For this analysis, the Brownsville-Harlingen Metropolitan Statistical Area (MSA) was selected as the ROI, encompassing Cameron County, TX.

The estimated inputs were used to produce EIFS reports (model results) for changes in total business volume, employment, income, and population. These are best shown as percentages (of the activity in the total ROI), and can be prepared to the RTVs for that variable in that ROI. The following EIFS documentation is provided; detailing the inputs, documenting projected changes, and evaluating the potential significance of the predicted change, based on the RTV technique:

EIFS REPORT

PROJECT NAME

Brownsville AFRC

STUDY AREA

48061 Cameron, TX

FORECAST INPUT

Change In Local Expenditures	$13,000,000
Change In Civilian Employment	0
Average Income of Affected Civilian	$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Multiplier	1.55	
Sales Volume - Direct	$3,844,086	
Sales Volume - Induced	$2,114,247	
Sales Volume - Total	$5,958,333	0.08%
Income - Direct	$818,646	
Income - Induced	$450,255	
Income - Total	$1,268,902	0.03%
Employment - Direct	32	
Employment - Induced	18	
Employment - Total	50	0.04%
Local Population	0	
Local Off-base Population	0	0%

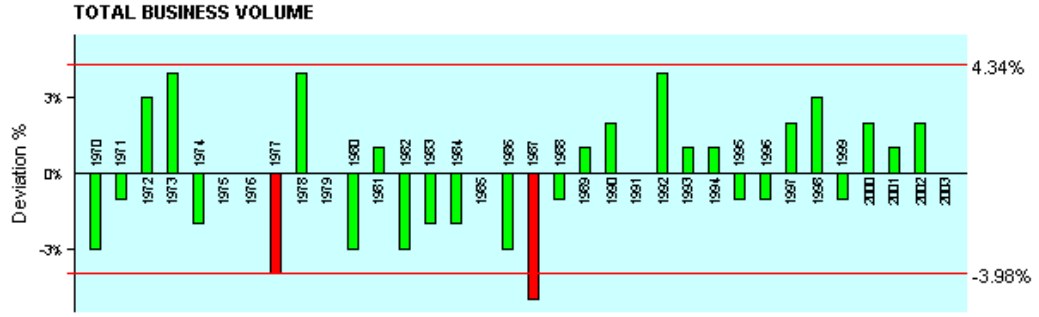
RTV SUMMARY

	Sales Volume	Income	Employment	Population

Positive RTV	4.34 %	4.1 %	2.89 %	2.3 %
Negative RTV	-3.98 %	-3.03 %	-3.97 %	-1.46 %

RTV DETAILED

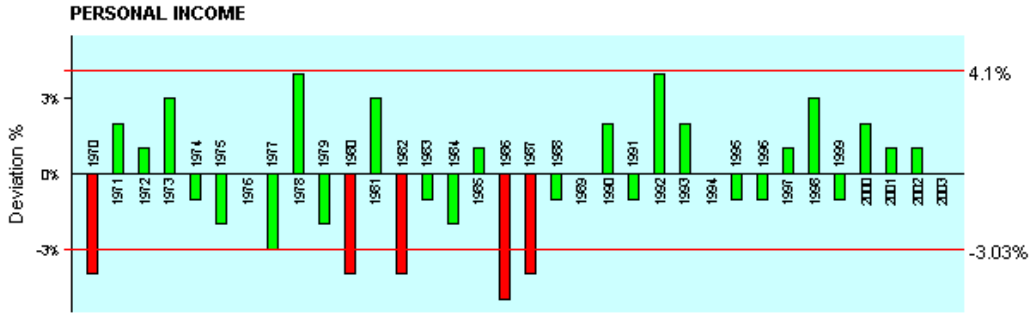
SALES VOLUME



Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	520256	2736547	0	-272607	0
1970	584518	2910900	174353	-98254	-3.38
1971	659832	3147399	236499	-36108	-1.15
1972	760416	3513122	365723	93116	2.65
1973	909812	3957682	444560	171953	4.34
1974	1059606	4143059	185377	-87230	-2.11
1975	1231186	4419958	276898	4291	0.1
1976	1384426	4707048	287091	14484	0.31
1977	1504424	4799113	92064	-180543	-3.76
1978	1777170	5260423	461311	188704	3.59
1979	2080376	5533800	273377	770	0.01
1980	2408294	5635408	101608	-170999	-3.03
1981	2792376	5947761	312353	39746	0.67
1982	3028246	6056492	108731	-163876	-2.71
1983	3202924	6213673	157181	-115426	-1.86
1984	3429204	6378319	164647	-107960	-1.69
1985	3692280	6646104	267785	-4822	-0.07
1986	3814068	6712760	66656	-205951	-3.07
1987	3901796	6633053	-79706	-352313	-5.31
1988	4185890	6823001	189947	-82660	-1.21
1989	4576948	7140039	317038	44431	0.62
1990	5080340	7569707	429668	157061	2.07
1991	5500462	7810656	240949	-31658	-0.41

1992	6093456	8408969	598313	325706	3.87
1993	6571388	8805660	396691	124084	1.41
1994	7024486	9131832	326172	53565	0.59
1995	7355010	9340863	209031	-63576	-0.68
1996	7720790	9496572	155709	-116898	-1.23
1997	8267160	9920592	424020	151413	1.53
1998	8801452	10473728	553136	280529	2.68
1999	9152384	10616765	143038	-129569	-1.22
2000	9939506	11132247	515481	242874	2.18
2001	10601454	11555585	423338	150731	1.3
2002	11224878	12010619	455035	182428	1.52
2003	11693138	12277795	267175	-5432	-0.04

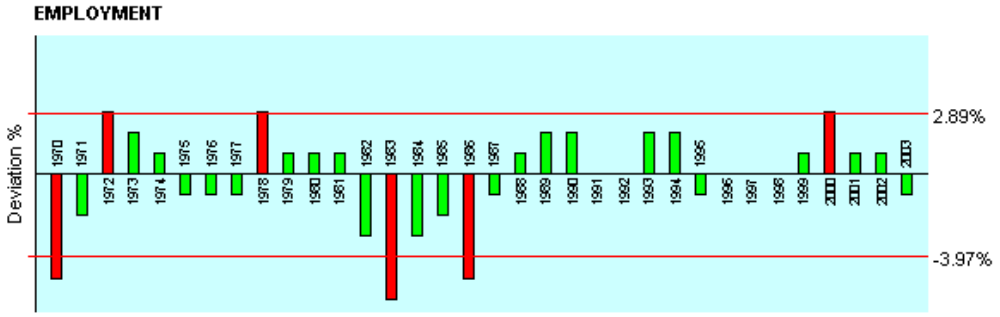
INCOME



Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	273704	1439683	0	-136153	0
1970	304475	1516286	76602	-59551	-3.93
1971	353840	1687817	171531	35378	2.1
1972	400490	1850264	162447	26294	1.42
1973	470305	2045827	195563	59410	2.9
1974	554719	2168951	123125	-13028	-0.6
1975	631835	2268288	99336	-36817	-1.62
1976	708180	2407812	139524	3371	0.14
1977	776559	2477223	69411	-66742	-2.69
1978	920673	2725192	247969	111816	4.1
1979	1052223	2798913	73721	-62432	-2.23
1980	1206820	2823959	25046	-111107	-3.93
1981	1434221	3054891	230932	94779	3.1
1982	1528873	3057746	2855	-133298	-4.36
1983	1631343	3164805	107059	-29094	-0.92

1984	1742611	3241256	76451	-59702	-1.84
1985	1888593	3399467	158211	22058	0.65
1986	1922075	3382852	-16615	-152768	-4.52
1987	1991502	3385553	2701	-133452	-3.94
1988	2143412	3493762	108208	-27945	-0.8
1989	2316292	3613416	119654	-16499	-0.46
1990	2578768	3842364	228949	92796	2.42
1991	2779943	3947519	105155	-30998	-0.79
1992	3083772	4255605	308086	171933	4.04
1993	3343040	4479674	224068	87915	1.96
1994	3562916	4631791	152117	15964	0.34
1995	3702692	4702419	70628	-65525	-1.39
1996	3908490	4807443	105024	-31129	-0.65
1997	4177487	5012984	205542	69389	1.38
1998	4468230	5317194	304209	168056	3.16
1999	4647644	5391267	74073	-62080	-1.15
2000	5023149	5625927	234660	98507	1.75
2001	5346948	5828173	202246	66093	1.13
2002	5651260	6046848	218675	82522	1.36
2003	5909572	6205051	158202	22049	0.36

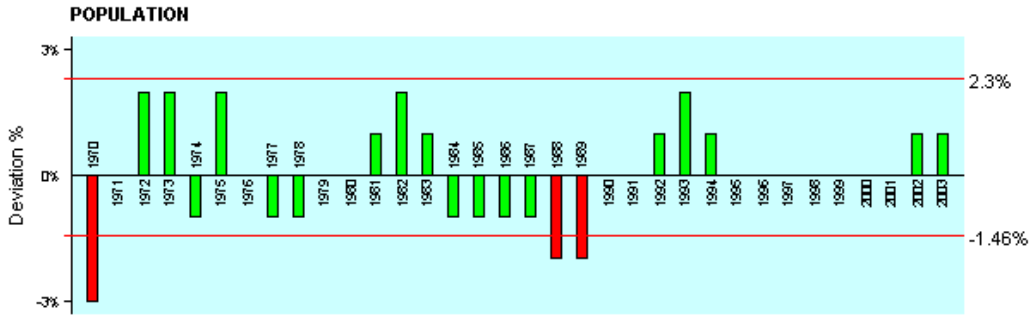
EMPLOYMENT



Year	Value	Change	Deviation	%Deviation
1969	47886	0	-2943	0
1970	48386	500	-2443	-5.05
1971	50444	2058	-885	-1.75
1972	54937	4493	1550	2.82
1973	59245	4308	1365	2.3
1974	62831	3586	643	1.02
1975	64978	2147	-796	-1.23

1976	67458	2480	-463	-0.69
1977	69510	2052	-891	-1.28
1978	74474	4964	2021	2.71
1979	77998	3524	581	0.74
1980	81854	3856	913	1.12
1981	85250	3396	453	0.53
1982	85906	656	-2287	-2.66
1983	83882	-2024	-4967	-5.92
1984	84320	438	-2505	-2.97
1985	85508	1188	-1755	-2.05
1986	84005	-1503	-4446	-5.29
1987	85887	1882	-1061	-1.24
1988	89352	3465	522	0.58
1989	94183	4831	1888	2
1990	99392	5209	2266	2.28
1991	102012	2620	-323	-0.32
1992	105408	3396	453	0.43
1993	110589	5181	2238	2.02
1994	116348	5759	2816	2.42
1995	118685	2337	-606	-0.51
1996	122090	3405	462	0.38
1997	125465	3375	432	0.34
1998	128844	3379	436	0.34
1999	133715	4871	1928	1.44
2000	140724	7009	4066	2.89
2001	145046	4322	1379	0.95
2002	149948	4902	1959	1.31
2003	150891	943	-2000	-1.33

POPULATION



Year	Value	Change	Deviation	%Deviation
1969	138947	0	-6384	0
1970	141196	2249	-4135	-2.93
1971	147753	6557	173	0.12
1972	157489	9736	3352	2.13
1973	166939	9450	3066	1.84
1974	172211	5272	-1112	-0.65
1975	182806	10595	4211	2.3
1976	189415	6609	225	0.12
1977	194722	5307	-1077	-0.55
1978	198941	4219	-2165	-1.09
1979	205544	6603	219	0.11
1980	211944	6400	16	0.01
1981	220184	8240	1856	0.84
1982	230718	10534	4150	1.8
1983	238878	8160	1776	0.74
1984	242355	3477	-2907	-1.2
1985	245894	3539	-2845	-1.16
1986	250996	5102	-1282	-0.51
1987	253714	2718	-3666	-1.44
1988	254410	696	-5688	-2.24
1989	256512	2102	-4282	-1.67
1990	261728	5216	-1168	-0.45
1991	269261	7533	1149	0.43
1992	277322	8061	1677	0.6
1993	288297	10975	4591	1.59
1994	297316	9019	2635	0.89
1995	304928	7612	1228	0.4
1996	312086	7158	774	0.25
1997	318281	6195	-189	-0.06
1998	324556	6275	-109	-0.03
1999	330277	5721	-663	-0.2
2000	336826	6549	165	0.05
2001	344262	7436	1052	0.31
2002	353086	8824	2440	0.69
2003	362372	9286	2902	0.8

Summary of Results

The EIFS analyses indicated that the proposed action will produce no major socioeconomic effects in the ROI (community). The projected changes compare the appropriate RTVs as follows:

	Projected change	RTV
Business (sales) volume	0.08%	4.34%
Income	0.03%	4.10%
Employment	0.04%	2.89%
Population	0.0%	2.30%

This significance determination is "conservative"--well within any errors produced through assumed EIFS input values. While these inputs could be refined, the results of the analysis (final determination) will certainly remain unchanged.

As this project involves the purchase of land from private sources, some local tax revenues will be reduced from the purchase and utilization by the government, which is tax exempt. The purchase price of this land is approximately $424,000. Applying the published Cameron county property tax rate of $0.80 per $100 of taxable assessed valuation (TAV) to this purchase price, this will yield a maximum reduction of $3392 per year in tax revenues. This is significant overestimate of the lost tax revenues, as the "assessed value" of this property is less than the purchase price. This loss in tax revenue will be easily offset by the exogenous influx of construction expenditures during the construction phase of the proposed action and the indicated multiplier affect. While development of the property for other commercial or non-government uses would produce additional revenues, such development is speculative and cannot be ascertained without more specific information.

APPENDIX D
Environmental Condition of Property Report

Environmental Condition of Property

10.89-Acre Property
Woodruff Avenue at East Los Ebanos Boulevard
Brownsville, Cameron County, Texas

Contract No. W912QR-04-D-0044
Delivery Order No. 0012

U.S. Army Corps of Engineers®
Louisville District

Prepared for:

U.S. Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202-2232

Prepared by:

Terraine-EnSafe 8(a) Joint Venture
5912 Toole Drive, Suite A
Knoxville, Tennessee 37919-4179

February 24, 2009

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1.0 SUMMARY

The Terraine-EnSafe Joint Venture has prepared this Environmental Condition of Property (ECP) Report[1] ("ECP Report") for use by the Assistant Chief of Staff for Installation Management - Army Reserve Division, for the acquisition of a 10.89-acre property, hereafter referred to as the "Property." The Property is at the southwest corner of Woodruff Avenue and East Los Ebanos Boulevard in Brownsville, Cameron County, Texas 78520. The location of the Property is shown on the Site Vicinity Map in Appendix A. The Property is irregular in shape, as shown on the Site Plan in Appendix B, and does not contain structures.

This report meets the Department of the Army's requirement to assess, determine and document the environmental condition of transferable property in an ECP Report. The ECP was performed to collect reliable information regarding the environmental condition of the Property to determine the Property's suitability for acquisition. In accordance with Army Regulation 200-1 (AR 200-1), Section 15-5 c(6) Environmental Protection and Enhancement, this ECP complies with the U.S. Environmental Protection Agency's (EPA's) "All Appropriate Inquiry" ("AAI") rules under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) prior to obtaining title to the Property so as to preserve defenses to CERCLA liability as an innocent land owner, bona fide prospective purchaser, or contiguous property owner, to reduce risk to Army, and to ensure that Army pays appropriate consideration for the Property. This ECP Report complies with EPA's AAI rules and specifically with the American Society for Testing and Materials (ASTM) Designation: E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

This ECP revealed for the Property one historic Recognized Environmental Condition and one Recognized Environmental Condition associated with petroleum hydrocarbons. Four business environmental risks were also revealed.

The Coca Cola Bottling Plant was formerly located on the Property. According to Mike Brisnahan of the Vannie Cook Trusts, the Coca Cola building was demolished in 1995. Coca Cola operated five underground storage tanks (USTs) on the site in three separate tank pits. Two USTs were removed from a single tank pit in August 1987. At the same time two new USTs were installed to replace the removed tanks. Shortly thereafter, a 36-inch diameter recovery well was installed in the tank pit to remove phase separated hydrocarbons (PSH). In June 1989 three USTs were removed from the remaining two pits at the site and recovery systems were installed in both tank pits. In April 1990, the two replacement USTs were removed. Texas Commission on Environmental Quality (TCEQ) assigned Leaking Petroleum Storage Tank (LPST) ID number 91421 to the Property. In January 1993, PSH removal was reduced to hand bailing from one monitoring well (MW-10). Groundwater at the site was monitored on a regular (mostly semi-annually) basis from August 1987 to February 1994. Sampling included analyzing the groundwater for general chemistry and it was determined to be saline. This, in conjunction with a determination that neither surface water or drinking water wells were threatened, and no off-site migration had occurred led TCEQ to require that the only remediation required at the site would be removal of PSH. This was accomplished to the satisfaction of TCEQ and the site was granted closure in February of 1995. Remediation and closure of an LPST on the Property constitutes a historical Recognized Environmental Condition.

[1] "Environmental Condition of Property Report" (or, "ECP report") is the *report* defined in § 3.2.78 of ASTM E 1527-05. Similarly, an "ECP" is an "ESA" as defined in § 3.2.30 of ASTM E 1527-05. Use of these terms is mandated by § 15-5 of AR 200-1. The ECP and report are required to conform to ASTM E1527-05. Terminology used throughout this report is intended to comply with ASTM E1527-05 usage, except where specifically noted.

Since 1995, TCEQ has implemented the Texas Risk Reduction Program (TRRP) and uses TRRP guidelines to provide closure for LPST sites. TEJV reviewed TCEQ files related to the Coca Cola Bottling Plant LPST site and compared them to current TRRP guidelines. A report entitled Contamination Assessment Report, dated November 13, 1987 indicates that soil borings and monitor wells were drilled and installed at the site. At least one soil sample collected from monitor wells MW-2, MW-10, and MW-11 exceeded current TRRP protective concentration levels (PCLs) for benzene. Based on this soil analytical data, the site would not be eligible for closure under current TRRP standards.

TEJV also reviewed a report entitled Report of Annual Groundwater Monitoring dated November 1993 in which groundwater analytical data from 1990 to August 1993 was summarized. This report was reviewed because it was referenced in a TCEQ memorandum recommending site closure in February 1995. Samples from eleven of the twelve monitor wells contained concentrations of benzene, ethylbenzene, toluene, and xylene that are less than current TRRP PCLs and, therefore, are eligible for closure. However, monitor well MW-10 contained PSH at a thickness of 0.01 inches, which is generally considered to be an amount acceptable to TCEQ. Although, groundwater samples meet current TRRP closure requirements, the presence of PSH in MW-10, represents a potential barrier to site closure.

Soil sample data from the 1995 Coca Cola Bottling Plant LPST site closure are above current TRRP PCLs (precluding closure under current standards) and PSH on site groundwater represents a potential barrier to site closure under current TRRP standards. The historical soil data from the LPST site exceeding current TCEQ TRRP guidelines and the potential presence of PSH constitutes a Recognized Environmental Condition.

TEJV observed an approximately 30 to 40 cubic yard soil pile of unknown origin on the south central portion of the Property. According to the site contact, Mr. Brisnahan, no one has permission to store or dump soil on the Property. The presence of a soil pile of unknown origin on the Property is considered a business environmental risk.

Several brush piles located around the perimeter of the Property contain automotive tires. A total of three discarded tires were observed in three separate piles (one in each pile). The discarded tires are considered a business environmental risk.

One concrete building foundation, approximately forty feet square was observed on the south central portion of the Property. Floor tile, linoleum, and black mastic were observed on the foundation. The potential presence of asbestos-containing floor tile, linoleum and/or mastic constitutes a business environmental risk.

One other finding of environmental concern was identified on the Property. Historical topographic maps and aerial photographs indicate that a drainage canal was present on the Property from at least 1936 until 1970. The canal connected a lake west of the Property to the Resaca de la Palma east of the Property. The canal was filled in after 1970, but before 1977. The origin of the fill material is unknown. The unknown origin of the drainage canal fill material constitutes a business environmental risk.

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2.0 INTRODUCTION

2.1 Purpose

The Terraine-EnSafe Joint Venture (TEJV) conducted this Environmental Condition of Property (ECP) for the 90th Regional Readiness Command (RRC). The purpose of this ECP is to identify Recognized Environmental Conditions affecting the Property, using the methodology recommended by the American Society for Testing and Materials (ASTM) in order to satisfy the requirements for the Landowner Liability Protections (innocent landowner defense, contiguous property owner liability protection, and bona fide prospective purchaser liability protection) provided by the Comprehensive Environmental Response, Compensation, and Liability Act's (CERCLA's) All Appropriate Inquiry (AAI) Rule (40 Code of Federal Regulations [CFR] Part 312), and to help understand potential environmental conditions that could materially impact the purchase price and the intended operations on the Property. This ECP conforms with ASTM Designation: E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

Recognized Environmental Conditions are defined by ASTM E 1527-05 as "...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

2.2 Detailed Scope of Services

The specific scope of this assignment included the following:

2.2.1 Site Reconnaissance

A site reconnaissance was conducted to obtain information indicating the likelihood of identifying Recognized Environmental Conditions in connection with the Property. The site reconnaissance included observation of the pavements, utilities (potable water, sewage), hazardous substances and petroleum products, drainages, paths, and potential sources of pollutant releases (odors, pools of liquid, stains, septic systems, drums, polychlorinated biphenyls [PCBs], drains and sumps, lagoons, stressed vegetation, etc.), located on the Property. The Property was also observed from its periphery, and obvious past and present Property uses were noted. In addition, a reconnaissance of the surrounding roads and adjacent properties was conducted to assess the Site's location with respect to surrounding property uses and natural surface features and to identify obvious past and present uses, and potential environmental conditions on adjoining properties as well as the surrounding area. Photographs taken as part of the site reconnaissance are provided in Appendix C.

The site visit was conducted on February 3, 2009, by Kerry Hill of the TEJV, contractor for U.S. Army Corps of Engineers (USACE), and the Assistant Chief of Staff for Installation Management - Army Reserve Division (ACSIM-ARD). The Property is represented by Mike Brisnahan of the Vannie Cook Trusts who was not present for the site visit. It was sunny to partly cloudy and cool, with a temperature of approximately 50°F at the time of the site survey. The Property consists of 10.89 acres of land. The site reconnaissance was conducted in a systematic manner, and entailed walking around the boundary of the Property, then back and forth across the Property at four separate intervals equidistant between the north and south boundary in a zigzag pattern from the north boundary to the south boundary. The adjoining property boundaries

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were viewed from the Property boundaries during the site reconnaissance in order to provide complete coverage of the Property. Adjacent properties were also viewed from those vantage points.

2.2.2 Interviews

Persons were interviewed to obtain information indicating Recognized Environmental Conditions in connection with the Property and adjoining properties to determine current and past site uses, and to identify other present and previous activities and events potentially resulting in the environmental degradation of the Property. The following table presents a summary of the individuals interviewed, contacted, and to whom requests for documentation were made as part of this ECP. Information obtained from these interviews is discussed in Section 7.0 and documented in Appendix F (Interview Documentation).

Name	Affiliation
Persons Interviewed:	
Mike Brisnahan*	Vannie Cook Trusts - Property Owner Representative and Site Access
Chris Gracia	City of Brownsville Fire Marshall's Office - Inspector
David Gomez	City of Brownsville Health Department - Inspector
Maggie Martinez	City of Brownsville - City Secretary
Tanzi Tabassam	Texas Commission on Environmental Quality - Central Records Attendant

*** Key Site Manager**

2.2.3 Records Review

The purpose of the records review is to obtain and review records that will help identify Recognized Environmental Conditions in connection with the Property. Reasonably ascertainable documents from standard sources were obtained and reviewed. If provided, alternative sources of information, such as appraisals, environmental reports, permits, building plans, and specifications, were reviewed. Copies of all supporting documentation are included in Appendix G.

Standard historical sources, such as topographic maps, aerial photographs, local street directories, fire insurance maps, recorded land title records, as well as other historical sources, were obtained and reviewed to identify previous activities on and in the vicinity of the Property. Copies of these documents are included in Appendix D.

Reasonably ascertainable standard environmental record sources maintained by federal, state, and local agencies within the approximate minimum search distance (AMSD) were obtained and reviewed as described within the Records Review Section 5.0 of this report. A copy of the computerized environmental report (CER), provided by Environmental Data Resources, Inc. (EDR), can be referenced in Appendix E. The most recent U.S. Geological Survey (USGS) 7.5-Minute Topographic Map was also reviewed. The relevant area of this map is shown in Appendix D.

Published radon occurrence information for Cameron County provided by EDR was reviewed to determine whether the Property is located in an area with a propensity for elevated radon concentrations.

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2.3 Significant Assumptions

The information obtained from individuals interviewed and prior environmental reports was considered to be accurate unless reasonable inquiries indicated otherwise. Conditions observed were considered representative of similar areas that were not accessible unless otherwise indicated. This ECP Report presents a summary of reasonably ascertainable information on the environmental conditions of, and concerns relative to, the land, facilities, and real property assets at the Property. Its findings are based on a record search of publicly-available documents, a thorough review of reasonably ascertainable documents, a visual reconnaissance of the Property conducted on February 3, 2009, and interviews with personnel knowledgeable about the Property and its history. Information obtained from these other sources is reflected within this report by reference.

2.4 Limitations and Exceptions

2.4.1 Limitations

No buildings or structures are located on the Property, although one concrete foundation was observed. No sampling or analysis of any media was conducted during this survey.

This report has been prepared in compliance with the ASTM standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" E 1527-05. In preparing this report, the TEJV has relied on certain information provided by federal, state, and local officials and other parties referenced therein, and on information contained in the files of governmental agencies, that were reasonably ascertainable at the time of this assessment. Although there may have been some degree of overlap in the information provided by these various sources, an attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment was not conducted. Observations were made of the Property as indicated in this report.

2.4.2 Exceptions

There are no exceptions.

2.4.3 Data Gaps

According to § 3.2.20 of ASTM Standard E 1527-05, a data gap is a lack of or inability to obtain information required by the ASTM Standard despite good faith efforts to gather same. Data gaps may result from incompleteness in any of the activities required by the ASTM Standard. A data gap is considered significant only if it affects the ability to identify Recognized Environmental Conditions.

No significant data gaps were identified.

2.5 Special Terms and Conditions

The TEJV has prepared this report solely for the use of ACSIM-ARD in evaluating the Property for acquisition. This report or any portions thereof should not be disseminated to or relied on by any other party except in accordance with § 2.6 of ASTM E 1527-05.

This ECP did not include an evaluation of the Property for suitability; structural, mechanical, building or site safety; financial; or any other aspects of the Property other than those aspects necessary to comply with the AAI Rule and as specifically noted herein.

2.6 User Reliance

This report has been produced under an agreement between the TEJV, USACE, and ACSIM-ARD. Any reliance upon this document, or upon the TEJV's performance of services in preparing this document, is conditioned upon the relying party's acceptance and acknowledgement of the limitations, qualifications, terms, conditions and indemnities set forth in the agreement between the

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parties, and property ownership/management disclosure limitations, if any. It is not to be relied upon by any party other than the U.S. Government, nor used for any purpose other than that specifically stated in Section 2.1 of this report without advance and express written consent by the TEJV, USACE, and ACSIM-ARD.

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3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The Property is located in Cameron County, Texas, and is identified on the Cameron County tax map as parcels no. 50175, 50176, 50178, 50179, 50180, 50182, 50185, and 50188. The following provides general asset information for the Property:

Facility Name and Address:	10.89-acre Property Woodruff Avenue at East Los Ebanos Boulevard Brownsville, Cameron County, Texas 78520
Property Owner:	Vannie Cook Trusts
Building Owner:	Not Applicable. Property has no buildings.
Date of Ownership:	Parcel 50188 - July 14, 1986 Parcel 50175 - July 14, 1986 Parcel 50176 - December 8, 1994 Parcel 50185 - December 2, 1994 Parcels 50178, 50179, 50180, and 50182 - January 17, 1995
Current Occupant:	Not Applicable. Property is unoccupied.
Zoning:	Commercial/light manufacturing
USGS Quadrangle:	East Brownsville, Texas
Latitude/Longitude:	25° 55’ 48.0” North Latitude and 97° 29’ 38.0” West Longitude
Legal Description:	All those certain piece or parcels of land being portions of blocks 63 and 64, being 1.259 acres, more or less, in the subdivision of Los Ebanos Properties, according to the map or plat thereof, as filed of record in Volume 8, page 12, being parcel number 50175, Cameron County, State of Texas. All those certain piece or parcels of land being portions of Blocks 63 and 64, being 0.851 acres, more or less, in the subdivision of Los Ebanos Properties, according to the map or plat thereof, as filed of record in Volume 8, page 12, being parcel number 50176, Cameron County, State of Texas. All that certain piece or parcel of land being the West 200 feet of the East 250 feet of Block 63, being 1.285 acres, more or less, in the subdivision of Los Ebanos Properties, according to the map or plat thereof, as filed of record in Volume 8, page 12, being parcel numbers 50178, 50179, 50180 and 50182, Cameron, County, State of Texas. All that certain piece or parcel of land situated and lying in block 65, being 3.769 acres, more or less, in the subdivision of Los Ebanos Properties, according the map or plat thereof, as filed of record in Volume 8, Page 12, being parcel number 50185, Cameron County, State of Texas.

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	All that certain piece or parcel of land situated and lying in Block 66, being 3.71 acres, more or less, in the subdivision of Los Ebanos Properties, according to the map or plat thereof, as filed of record in Volume 8, page 12, being parcel number 50188, Cameron County, State of Texas. Assessor's Parcel Numbers: 50175, 50176, 50178, 50179, 50180, 50182, 50185, and 50188.
Property Size:	10.89 Acres

3.2 Site and Vicinity General Characteristics

The Property includes 10.89 acres of land, which is irregular in shape being roughly the shape of a triangle with the ninety degree angle being the intersection of Woodruff Avenue and Tulane Avenue at its southwest corner. The site is generally level, but hummocky and contains no perceptible slope. From the north boundary along Los Ebanos Boulevard, the Property slopes slightly toward the south and southeast based on a review of topographic maps and observed storm water flow patterns along adjacent streets. The Property has thick mixed Johnson and Bermuda grass that is mowed to a height of approximately 4 inches on the north two-thirds and is approximately 18 inches tall on the south one-third. The grass is underlain by blackberry vines and vetch. The Property contains several trees, near its center where a short section of wire fence is located.

Historically, the northwest portion of the Property was the Coca Cola Bottling Plant. The southwest portion was a church and was called Northside Baptist Church, Woodruff Avenue Baptist Church, Brownsville United Pentecostal Church, or the New Life Center United Pentecostal Church, all being housed in the same structure, but at different periods of time. The northern two-thirds of the Property was historically separated from the southern one-third by an earthen drainage canal. The south central and southeastern portion the Property has had a residence. The northeastern portion of the site has historically been undeveloped, except for periods when it appears to have been used to stage demolition debris from the Coca Cola Bottling Plant, church building, and/or the residence.

The area in the vicinity of the Property consists of mixed-use properties including an office furniture supply, attorney's office, and U.S. Border Patrol office across East Los Ebanos Boulevard to the north; single family residences to the south across Tulane Avenue; to the west is Don Carlos food catering and single family residences across Woodruff Avenue; and to the east is the Tulane Apartments and State Highway 77/83.

3.3 Current Use of the Property

Currently, the Property is undeveloped and does not contain structures. The only features on the Property were a fire hydrant near the southwest corner, an approximately 30-foot long section of wire fence near the center, and a concrete foundation (40 feet square) near the south central boundary. At the time of the site reconnaissance, the Property was not being used for any specific purpose, although a soil pile was observed to have been placed on the concrete foundation.

3.4 Description of Structures, Roads, Improvements on the Site

3.4.1 Utilities

Since the Property is undeveloped, it is not currently served by utilities. However, utilities are located along the all of the boundaries. The Property has access to the following utilities:

Water:	City of Brownsville Public Utility Board
Sanitary Sewer:	City of Brownsville Public Utility Board

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Storm Sewer: City of Brownsville Public Utility Board
Electric: City of Brownsville Public Utility Board
Natural Gas: City of Brownsville Public Utility Board
Telephone: Southwestern Bell
Trash: Waste Management

Storm water at the Property is currently primarily captured by infiltration. However, during the site reconnaissance, storm water inlets were observed equidistant apart along East Los Ebanos Boulevard and Woodruff Avenue along the north and west boundaries of the Property. The storm water inlets along Woodruff Avenue were filled with silt.

3.4.2 Building Descriptions

The Property is undeveloped and currently does not contain buildings or structures. One forty- by forty-foot square concrete foundation was observed in the south central portion of the site. Remnants of the Coca Cola asphalt parking lot are visible along the central portion of the west boundary of the Property.

3.4.3 Other Facilities and Site Features

Flag markers for underground telephone cables were located along East Los Ebanos and the State Highway 77/83 frontage road. Man way covers for the sanitary sewer and water line valves associated with the fire hydrants are located along Woodruff Avenue. A fire hydrant is located on the southwest corner of the Property.

3.5 Current Uses of the Adjoining Properties

The Property is in a mixed-use setting characterized by commercial and residential development, as well as undeveloped land. The following is a tabulation of surrounding property use:

Direction	Adjacent Properties	Surrounding Properties
North	Office furniture store, attorney's office, U.S. Border Patrol office, City of Brownsville park, and Pronto No. 9 convenience store across East Los Ebanos Boulevard	Frontage road and State Highway 77/83
South	Tulane Avenue then residential neighborhood of single family dwellings	Residential neighborhood with small businesses along State Highway 77/83
East	Tulane Apartments, one single family residence, frontage road, and State Highway 77/83	Commercial properties including furniture sales, restaurants, and car parts stores
West	Woodruff Avenue then residential neighborhood consisting of single family dwellings	Residential neighborhood, elementary school, and post office

The environmental records search report identified the adjoining U.S. Border Patrol office as an underground storage tank (UST) site. The facility operated two 4,000-gallon gasoline USTs. According to the Texas Commission on Environmental Quality (TCEQ) Petroleum Storage Tank (PST) database both tanks were removed in 1996 and no release was reported.

Pronto No. 9 convenience store operated one 6,000- and one 8,000-gallon gasoline UST. The tanks were removed from the ground in June 2007. In 1992, a release was reported and Leaking Petroleum Storage Tank (LPST) ID Number 105039 was assigned to the site.

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TCEQ database information indicates that the release was categorized as “Soil Contamination – No Remedial Action Required”.

TEJV reviewed the Railroad Commission of Texas database information and found no active oil wells or petroleum pipelines on adjoining properties.

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4.0 USER PROVIDED INFORMATION

The purpose of this section is to summarize tasks performed prior to conduct of the site reconnaissance by or on behalf of the 90th RRC (the User) that will help identify the possibility of Recognized Environmental Conditions in connection with the Property. A User Questionnaire was sent to ?? of the 90th RRC. A copy of the completed User Questionnaire is presented in Appendix F (not provided to TEJV yet).

4.1 Title Records

In accordance with the contract scope of work, NETR Real Estate Research and Information obtained, from reasonably ascertainable records, a chain-of-title for the Property, which is provided in Appendix D.

4.2 Environmental Liens or Activity and Use Limitations

In accordance with the contract scope of work, NETR Real Estate Research and Information searched for reasonably ascertainable environmental liens and activity and use limitations for the Property. No environmental liens or activity and use limitations were found for the Property.

The User provided the following response to Questions Number 1 and 2 of the User Questionnaire:

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25). Are you aware of any environmental cleanup liens against the *Property* that are filed or recorded under federal, tribal, state or local law?

??.

(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). Are you aware of any activity and use limitations, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

??.

4.3 Specialized Knowledge

The User provided the following response to Questions Number 3 and 6 of the User Questionnaire:

(3.) Specialized knowledge or experience of the person seeking to qualify for the Landowner Liability Protections (40 CFR 312.28). As the *User* of this *environmental site assessment (ESA)* do you have any specialized knowledge or experience related to the *Property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *Property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

??.

(6.) The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). As the *User* of this *ESA*, based on your knowledge and experience related to the *Property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the Property?

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4.4 Commonly Known or Reasonably Ascertainable Information

The User provided the following responses to Question Number 5 of the User Questionnaire:

(5.) Commonly known or *reasonably ascertainable* information about the *Property* (40 CFR 312.30). Are you aware of commonly known or *reasonably ascertainable* information about the *Property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as User,

(a.) Do you know the past uses of the *Property*?

??.

(b.) Do you know of specific chemicals that are present or once were present at the *Property*?

??.

(c.) Do you know of spills or other chemical releases that have taken place at the *Property*?

??.

(d.) Do you know of any environmental cleanups that have taken place at the *Property*?

??.

4.5 Valuation Reduction for Environmental Issues

The User provided the following response to Question Number 4 of the User Questionnaire:

(4.) Relationship of the purchase price to the fair market value of the Property if it were not contaminated (40 CFR 312.29). Does the purchase price being paid for this *Property* reasonably reflect the fair market value of the *Property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *Property*?

???

Note: The appraisal for the Property has not been conducted. However, the proposed purchase price of the Property appears to be within range of fair market values for surrounding commercial properties. Once the appraisal is conducted, a more detailed response to this question will be included in the ECP Update (if applicable). (Response provided by ACSIM-ARD)

4.6 Owner, Property Manager, and Occupant Information

The USACE provided the TEJV with the Property owner information.

4.7 Reason for Performing ECP

The purpose of this ECP Report is to identify Recognized Environmental Conditions affecting the Property, using the methodology recommended by ASTM in order to satisfy the requirements for the Landowner Liability Protections (innocent landowner defense, contiguous property owner liability protection, and bona fide prospective purchaser liability protection) provided by CERCLA's AAI Rule (40 CFR Part 312), and to help understand potential environmental conditions that could materially impact the purchase price and the intended operations on the Property.

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4.8 Other

The User of this report was unaware of any other obvious indicators that point to the presence or likely presence of contamination at the Property. (not provided to TEJV yet)

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5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

A copy of regulatory database information contained within a CER provided by EDR is in Appendix E. The CER is a listing of sites identified on select federal and state standard source environmental databases within the AMSD specified by ASTM Standard Practice for Environmental Site Assessments E 1527-05. The TEJV reviewed each environmental database to determine if certain sites identified in the CER are suspected to represent a material negative environmental impact to the Property. The following table lists the number of sites by regulatory database within the prescribed minimum search distance appearing in the CER.

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD
Federal National Priorities List (NPL) Site List	One-Mile	0
Federal Delisted NPL Site List	One-Half Mile	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	One-Half Mile	0
Federal CERCLIS No Further Remedial Action Planned (NFRAP) Sites	One-Half Mile	0
Federal Resource Conservation and Recovery Information System (RCRIS) Treatment, Storage, and Disposal (TSD) List	One-Half Mile	0
Federal RCRIS Generators List	Onsite and Adjoining Properties	0
Federal RCRIS Non-Generators List	One-Half Mile	1
Federal Corrective Action Tracking System (CORRACTS)	One-Mile	0
Federal Emergency Response Notification System (ERNS) List	Onsite	0
Federal Institutional/Engineering Control Registries	Onsite	0
State and Tribal Lists of NPL Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation	One-Mile	0
State and Tribal Lists of CERCLIS Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation	One-Half Mile	0
State and Tribal Landfills or Solid Waste Facilities List	One-Half Mile	0
State and Tribal Petroleum Bulk Storage Tank Registered UST Facility List	Onsite and Adjoining Properties	4
State and Tribal Leaking UST/Spill List	One-Half Mile	7
State and Tribal Institutional/Engineering Control Registries	Onsite	0
State and Tribal Voluntary Cleanup Sites	One-Half Mile	0
State and Tribal Brownfields Sites	One-Half Mile	0
State Drycleaners	One-Quarter Mile	0

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The CER listed several "Orphan Sites." "Orphan Sites" are those sites that could not be mapped or "geocoded" due to inadequate address information. Refer to the CER for a list of "Orphan Sites." The TEJV attempted to locate the "Orphan Sites" via a review of street maps, vehicular reconnaissance, and/or interviews with people familiar with the area. None of the CER identified "Orphan Sites" was determined to be within the AMSD for the database on which it was listed.

A description of the databases reviewed by the TEJV and an analysis of sites identified within the prescribed search area are presented below.

5.1.1 Federal Databases

NPL

The NPL database is a listing of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under CERCLA or "Superfund." A site must be on the NPL to receive money from the Trusts Fund for Remedial Action.

Analysis/Comment: The CER did not identify NPL sites within the AMSD.

Delisted NPL Site List

The EPA may delete a final NPL site if it determines that no further response is required to protect human health or the environment. Under Section 300.425(e) of the National Contingency Plan (55 CFR 8845, March 8, 1990), sites that have been deleted from the NPL remain eligible for further Superfund-financed remedial action in the unlikely event that conditions in the future warrant such action. Partial deletions can also be conducted at NPL sites.

Analysis/Comment: The CER did not identify delisted NPL sites within the AMSD.

CERCLIS

CERCLIS is the EPA's system for tracking potential hazardous-waste sites within the Superfund program. A site's presence on CERCLIS does not imply a level of federal activity or progress at a site, nor does it indicate that hazardous conditions necessarily exist at the location. Within one year of being entered into CERCLIS, the EPA performs a preliminary assessment of a site. Based upon the results of the preliminary assessment, the EPA may conduct additional investigations, which could lead to a site being listed on the NPL.

Analysis/Comment: The CER did not identify CERCLIS sites within the AMSD.

CERCLIS NFRAP Sites

As of February 1995, CERCLIS sites designated NFRAP have been removed from the CERCLIS list. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to warrant Federal Superfund Action or NPL consideration.

Analysis/Comment: The CER did not identify CERCLIS NFRAP sites within the AMSD.

RCRIS TSD

The RCRIS TSD contains information pertaining to those facilities that treat, store, or dispose of hazardous waste. While these facilities represent some form of hazardous waste activity, they are most significant if determined to be out of compliance or to have violations.

***Analysis/Comment*:** The CER did not identify RCRIS TSD facilities within the AMSD.

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RCRIS Generators

The TEJV reviewed the list of sites that have filed notification with the EPA in accordance with RCRA requirements. These sites include generators of hazardous waste regulated under RCRA. Under RCRA, hazardous waste generators are classified by the quantity of hazardous waste generated in a calendar month into the following categories: large-quantity generator, greater than 1,000 kilograms (kg); small quantity generator, 100 to 1,000 kg; and conditionally exempt small-quantity generator, less than 100 kg. RCRA generators, while they represent some form of hazardous waste activity, are most significant if they are determined to have Class I Violations or to be non-compliant.

Analysis/Comment: The CER identified did not identify any RCRIS generator sites within the AMSD.

RCRIS Non-Generators

RCRAInfo is EPA's comprehensive information system providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA.

Analysis/Comment: The CER identified one RCRIS Non-Generator within the AMSD. TRISA Commercial JYGAR Electronic Distribution (EPA ID TXR000024067) is a trucking company that transports hazardous waste associated with the electronics industry. The site does not generate hazardous waste and did not have any reported violations according to the CER. TEJV reviewed TCEQ's Central Registry and determined that the state waste registration number for the facility is 85325.

CORRACTS

CORRACTS is a list of facilities that are found to have had hazardous waste releases and require RCRA corrective action activity, which can range from site investigations to remediation.

Analysis/Comment: The CER did not identify any CORRACTS sites within the AMSD.

ERNS

The ERNS is a database of notifications of oil discharges and hazardous substance releases made to the Federal government. These notifications are used by "On-Scene Coordinators" to determine an emergency response and release prevention. When a call is made to the National Response Center or one of the 10 EPA Regions, a report is created containing all of the release information that the caller provided. This report is transferred to an appropriate agency to evaluate the need for a response and the records are electronically transferred to the ERNS database. As such, if a reported release of oil or a hazardous substance is deemed to require a response, it should also be listed in the appropriate federal or state environmental database such as CERCLIS, state equivalent CERCLIS, or state leaking UST or spills lists.

***Analysis/Comment*:** The CER did not identify the Property on the ERNS database.

Federal Institutional Control/Engineering Control Registries

These Federal registries contain listings of those sites that have engineering and/or institutional controls in place. Engineering controls include various physical control devices such as fences, caps, building slabs, paved areas, liners and treatment methods to eliminate pathways for regulated substances to enter the environment or effect human health. Institutional controls include

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administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions (activity and use limitations) are generally required as part of institutional controls.

Analysis/Comment: The CER did not identify the Property on the Federal Institutional or Engineering Control registries.

5.1.2 State and Tribal Databases

Texas and Tribal NPL Equivalent Hazardous Waste Sites

The Texas and Tribal NPL Equivalent Hazardous Waste Sites (HWS) list is an inventory of toxic sites listed by Texas and/or Tribal Environmental and Health Authorities. These sites are either under remediation, or are currently under evaluation for further action, if necessary.

Analysis/Comment: The CER did not identify any Texas NPL Equivalent HWS within the prescribed 1-mile AMSD. The CER did not provide information regarding Tribal NPL Equivalent HWS.

Texas and Tribal CERCLIS Equivalent HWS

The Texas and Tribal CERCLIS Equivalent HWS list is an inventory of toxic sites listed by Texas and/or Tribal Environmental and Health Authorities. These sites are either under remediation, or are currently under evaluation for further action, if necessary.

Analysis/Comment: The CER did not identify Texas CERCLIS Equivalent HWS within the AMSD. The CER did not provide information regarding Tribal CERCLIS Equivalent HWS.

Texas and/or Tribal Solid Waste Facilities List

The Solid Waste Facilities (SWF) list is an inventory of landfills, incinerators, transfer stations, and other sites that manage solid wastes.

Analysis/Comment: The CER did not identify Texas SWF sites within the AMSD. The CER did not provide information regarding Tribal SWF sites.

Texas and/or Tribal Registered Storage Tanks Facility List

The Texas Registered Storage Tanks (RST) list is an inventory of registered liquid bulk storage tanks. Inclusion of a site on the RST list does not necessarily constitute environmental contamination but merely indicates the presence of registered bulk storage tanks.

Analysis/Comment: The CER identified four Texas RST sites within the AMSD. However, a review of the database by TEJV only identified three sites that either currently operate USTs or removed USTs and were not issued an LPST ID by TCEQ.

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Property Name/Address	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
U.S. Border Patrol 835 N. Expressway	520 Feet North	Down-gradient	Two 4,000-gallon gasoline USTs removed in 1996. No LPST ID assigned.
Tejano Mart 6 834 N. Expressway	630 Feet Northeast	Down-gradient	Three 8,000-gallon USTs are currently in operation at the site and appear to be in compliance with TCEQ regulations. Five USTs were removed include two 10,000-gallon gasoline, one 4,000-gallon gasoline, one 560-gallon used oil, and one 500-gallon used oil. No LPST ID was assigned to the site.
Stripes 9636 1564 Los Ebanos Blvd	1,750 Feet East	Up-gradient	Site currently operating three 10,000-gallon gasoline USTs in general compliance Former Circle K - Groundwater impacted with no apparent threats to receptors. TCEQ final concurrence issued August 2006.

All three Texas RST sites were in general compliance status.

Texas and/or Tribal Leaking PST List

The Leaking PST list is an inventory of reported spills and leaks, both active and inactive. It includes stationary and non-stationary source spills reported to state, tribal and federal agencies, including remediated and contaminated leaking PST sites.

Analysis/Comment: The CER identified the following seven Texas Leaking PST sites within the AMSD. One of the LPST sites (Stripes 9636) currently operates USTs in compliance with TCEQ regulations and is listed as a UST site as well.

Property Name/Address	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Brownsville Coca Cola Bottling 1834 Los Ebanos Blvd.	Property	On-site	A total of 7 USTs were removed from the site; two in 1987, three in 1989, and two in 1990. Soil and groundwater were affected. LPST ID No. 91421 was assigned. Phase separated hydrocarbons were removed from the site and closure was granted on Feb 17, 1995.
Pronto No.9 1681 Los Ebanos Blvd	660 Feet Northwest	Cross-gradient	Soil only impact with no apparent threats to receptors. LPST ID No 105039 issued, but no remediation required.
Stripes 9636 1564 Los Ebanos Blvd	1,750 Feet East	Up-gradient	Former Circle K Convenience Store. Groundwater impacted with no apparent threats to receptors. TCEQ final concurrence issued August 2006. Site currently operating three 10,000-gallon gasoline USTs in general compliance.

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Property Name/Address	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Val-Mart 2 344 Paredes Line Road	1,880 Feet Northeast	Up-gradient	One 6,000-gallon gasoline, three 10,000-gallon gasoline, and one 8,000-gallon gasoline USTs removed from ground. Groundwater impacted with no apparent threats or impacts to receptors. TCEQ final concurrence issued September 2004.
U.S. Postal Service 1535 Los Ebanos Blvd	1,885 Feet Northwest	Up-gradient	Groundwater impacted with no apparent threats to receptors. TCEQ final concurrence issued May 2002.
Brownsville Sheet Metal Works 1954 S Price Road	2,040 Feet Northeast	Up-gradient	One UST was removed. The size and product contained in the UST is not given on the TCEQ database. LPST ID 102791 was issued, but no remediation was required and TCEQ issued concurrence.
Coastal Mart No 3072 825 Paredes Line Road	2,360 Feet Northeast	Up-gradient	Groundwater impacted no apparent threats or impacts to receptors. Final concurrence issued September 2007.

Each of the seven Texas Leaking UST sites identified in the CER has been either issued final concurrence by TCEQ or no remediation was required.

The Brownsville Coca Cola Bottling Plant was formerly located on the Property. According to Mr. Brisnahan, the Coca Cola building was demolished in 1995. Coca Cola operated five USTs on the site in three separate tank pits. Two USTs were removed from a single tank pit in August 1987. At the same time two new USTs were installed to replace the removed tanks. Shortly thereafter, a 36-inch diameter recovery well was installed in the tank pit to remove phase separated hydrocarbons (PSH). In June 1989, three USTs were removed from the remaining two pits at the site and recovery systems were installed in both tank pits. In April 1990, the two replacement USTs were removed. TCEQ assigned LPST ID number 91421 to Coca Cola for the Property. In January 1993, PSH removal was reduced to hand bailing from one monitor well (MW-10). Groundwater at the site was monitored on a regular (mostly semi-annually) basis from August 1987 to February 1994. Sampling included analyzing the groundwater for general chemistry and it was determined to be saline. This, in conjunction with a determination that neither surface water nor drinking water wells were threatened, and no off-site migration had occurred led TCEQ to require that the only remediation required at the site would be removal of PSH. This was accomplished to the satisfaction of TCEQ and the site was granted closure in February 1995.

Since 1995, TCEQ has implemented the Texas Risk Reduction Program (TRRP) and uses TRRP guidelines to provide closure for LPST sites. A report obtained from TCEQ (Appendix G) entitled Contamination Assessment Report, dated November 13, 1987, indicates that soil borings and monitor wells were drilled and installed at the Coca Cola Bottling Plant LPST site. At least one soil sample collected from monitor wells MW-2, MW-10, and MW-11 exceeded current TRRP protective concentration levels (PCLs) for benzene. Based on this soil analytical data, the site would not be eligible for closure under current TRRP standards.

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TEJV also reviewed a report obtained from TCEQ (Appendix G) entitled Report of Annual Groundwater Monitoring dated November 1993, in which groundwater analytical data from 1990 to August 1993 was summarized. This report was reviewed because it was referenced in a TCEQ memorandum recommending site closure in February 1995. Samples from eleven of the twelve monitor wells contained concentrations of benzene, ethylbenzene, toluene, and xylene that are less than current TRRP PCLs and, therefore, are eligible for closure. However, monitor well MW-10 contained PSH at a thickness of 0.01 inches, which is generally considered to be an amount acceptable to TCEQ. Although, groundwater samples meet current TRRP closure requirements, the presence of PSH in MW-10, represents a potential barrier to site closure.

Texas and Tribal Institutional Land Use Control Registries

The term Land Use Controls or "LUCs" encompasses "institutional controls", such as those involved in real estate interests, governmental permitting, zoning, public advisories, deed notices, and other "legal" restrictions. The term also includes restrictions on access, whether achieved by means of engineered barriers (e.g., fence or concrete pad) or by human means (e.g., the presence of security guards). Additionally, the term includes both affirmative measures to achieve the desired restrictions (e.g., night lighting of an area) and prohibitive directives (e.g., restrictions on certain types of wells for the duration of the corrective action).

LUCs are used when property needs to have a restriction placed on its use in order to protect a person's health or the environment. These restrictions could be placed on the land that a person owns, or surface water (a stream, pond, river, etc.), that is on the person's property, or groundwater that is underneath the property, depending on the circumstance.

In Texas there are five regulatory programs within the Bureau of Land and Waste Management that work together to maintain this Registry. The regulatory programs are:

- CERCLA, also known as the Superfund Program
- Dry Cleaning Facility Restoration Trusts Fund Act Program
- RCRA Subtitle C Program
- Solid Waste Program
- UST Program

***Analysis/Comment*:** The CER did not identify the Property on the Texas LUC registries. The CER did not provide information regarding Tribal LUC registries.

Texas and Tribal Voluntary Cleanup Program Sites

According to the TCEQ Website, the Texas Voluntary Cleanup Program (VCP) provides administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas. Since all non-responsible parties, including future lenders and landowners, receive protection from liability to the state of Texas for cleanup of sites under the VCP, most of the constraints for completing real estate transactions at those sites are eliminated. As a result, many unused or under used properties may be restored to economically productive or community beneficial use. Also, under the VCP, site cleanups follow a streamlined approach to reduce future human and environmental risk to safe levels.

***Analysis/Comment*:** The CER did not identify any Texas VCP sites within the AMSD.

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Texas and Tribal Brownfield Sites
The TCEQ, in close partnership with the EPA and other federal, state and local redevelopment agencies, and stakeholders, is facilitating cleanup, transferability, and revitalization of brownfields through the development of regulatory, tax, and technical assistance tools. A brownfield is defined as "an abandoned, idled, or underused industrial or commercial facility, where expansion or redevelopment has been complicated by real or perceived environmental contamination." The brownfield's component of the VCP allows a non-responsible party to acquire a contaminated property with State Superfund liability protection for existing contamination by agreeing to perform an environmental assessment and/or remediation. The amount of environmental work is site specific and dependent on the future use of the site. In addition, the TCEQ is available at no cost to local governments and will provide technical advice, education and project partnering for brownfields redevelopment projects.

***Analysis/Comment*:** The CER did not identify any Texas Brownfield sites within the AMSD. The CER did not provide information regarding Tribal Brownfield sites.

Texas Drycleaners
The State of Texas maintains a drycleaner registration database listing drycleaner facilities.

***Analysis/Comment*:** The CER did not identify any drycleaners within the AMSD.

5.2 Additional Environmental Record Sources
The TEJV conducted a search for reasonably ascertainable local environmental record sources. No records were obtained as a result of this search.

5.3 Physical Setting Sources
5.3.1 Topography
The Property has a hummocky surface, but is otherwise essentially flat with an almost imperceptible slope to the south. The slope is best observed along Woodruff Avenue where storm water flow patterns can be seen next to the curb. The topography of the surrounding area is also essentially flat and the area-wide topographic gradient is to the northeast. According to the USGS East Brownsville, Texas, 7.5-Minute Series topographic map, the Property's topographic elevation ranges from approximately 28 feet above mean sea level in the northwest portion to approximately 31 feet above mean sea level in the southeast portion.

5.3.2 Surface Waters
Storm water drainage culverts were on the north and east boundaries of the Property along East Los Ebanos Boulevard and Woodruff Avenue, respectively. No other storm water drainage pathways were noted on the Property. However, a visual assessment of nearby properties and the East Brownsville topographic map indicates that Resaca De La Palma (a channel parallel to the Rio Grande) is approximately one-half mile northeast of the Property boundary. The Resaca discharges into the Brownsville Channel and eventually the Gulf of Mexico. In addition, several smaller, unnamed resacas are present; one is one-forth mile to the east and another one-half mile to the southwest. No surface water bodies were observed on the Property, although historic topographic maps and aerial photographs indicate that a canal once connecting nearby resacas crossed the Property from west to east approximately 300 feet north of the south boundary. The canal was present from at least 1936 to between 1970 and 1977.

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5.3.3 Geology

There are no predominant geological surface features such as rock outcroppings on the Property. The site is located on the Coastal Prairies Physiographic Province. The Coastal Prairies are comprised of deltaic sands and mud, just inland from the Gulf of Mexico. These areas are essentially flat with a slope to the southeast. Trees are uncommon on the grassland except locally along streams and in oak mottes.

The underlying geologic formation at the Property is the Quaternary flood plain deposits of the Rio Grande. The deposits are locally divided into sediments based on dominant particle size; mud, silt and sand, or undivided. The Property is within the silt and sand dominated zone, labeled as Qas on the geologic map. Quaternary flood plain deposits may be upwards of several hundred feet thick.

No major or minor aquifers are present in the immediate vicinity of Brownsville. The Gulf Coast Aquifer (major aquifer) is present to the north, but pinches out and is not viable in Brownsville. The City of Brownsville derives potable water from surface water bodies.

5.3.4 Hydrogeology

The Property is located in the Quaternary flood plain deposits of the Rio Grande. These deposits are dominated by silt and sand. No major or minor aquifers are indicated in *Aquifers of Texas*, to be present at the Property location. Shallow groundwater is present at approximately eight to ten feet below ground surface at the site as indicated by groundwater monitoring reports submitted to TCEQ. According to these reports, near surface water is saline. The city obtains potable water from lakes and surface reservoirs designed for municipal water storage.

Abandoned oxbow lakes of the Rio Grande and other coastal drainage systems called resacas are present near the site. These features contain water year around and are hydraulically connected to the near-surface groundwater.

5.3.5 Soils

According to the *Soil Survey of Cameron County, Texas*, dated January, 1977; the Property is underlain by the Laredo-Olmito Soil Association. These soils are typically nearly level to gently sloping, well drained and moderately well drained silty clay loams and silty clays.

The Laredo-Olmito Association is divided into a number of distinct Soil Series and complexes. The Property has two soil complexes; the Laredo-Urban land on the northern one-third, and the Olmito-Urban land on the southern two-thirds. These similar soils are formed in the built up areas of cities and have slopes of 0 to 1 percent. Both soils contain upper silty clay and loamy layers approximately 23 inches thick. A 16 inch thick brown silty clay layer is present, then a pale brown silty clay. Due to the high clay content, these soils have a high shrink-swell potential.

According to the USDA Natural Resources Conservation Service Web Soil Survey data, the soils on the Property do not meet the requirements for a hydric soil.

5.4 Historical Use Information on the Property

The Property has historically been occupied by a Coca Cola Bottling Plant (northwest corner), a church (southwest corner), and one residence (south central area). The northeast area of the Property has historically been undeveloped or used for agricultural purposes. Historical research documentation including historical aerial photographs, topographic maps, and city directories are included in Appendix D.

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5.4.1 Topographic Maps

The TEJV reviewed historic USGS East Brownsville and the adjacent West Brownsville, Texas Quadrangle, 7.5-Minute Series topographic maps of the Property area provided by EDR. A summary of findings is tabulated below:

Year Revised	Property	Surrounding Properties
1926	A dirt road appears to cross the property north to south.	Old Point Isabel Road and Resaca de la Palma are visible.
1936	A canal is present across the Property and connects the Resaca de la Palma to a small lake west of the Property.	The Southern railroad is present to the east of the site. East Los Ebanos Boulevard and Woodruff Avenue are present.
1955	The canal is visible across the site. Northside Baptist Church is located on the southwest corner (SWC) of the Property.	Surrounding residential streets are present in the same configuration as seen during the site reconnaissance. Major streets include Boca Chica, Paredes, and Old Point Isabel Road.
1970	The canal is visible across the site. Northside Baptist Church is located on the SWC of the Property	Surrounding residential streets are present in the same configuration as seen during the site reconnaissance. Major streets include Boca Chica, Paredes, and Old Point Isabel Road. State Highway 77/83 is present between the Property and the Southern railroad.
1983	The canal is visible across the site. Northside Baptist Church is located on the SWC of the Property. The Coca Cola Bottling Plant is present on the NWC of the Property.	Surrounding residential streets are present in the same configuration as seen during the site reconnaissance. Major streets include Boca Chica, Paredes, and Old Point Isabel Road. State Highway 77/83 is present between the Property and the Southern railroad.

The topographic maps show the Property as developed by 1955, with surrounding properties being roads, railroads, an elementary school, and State Highway 77/83. A canal crossed the Property from east to west approximately two-thirds of the way below the north boundary. The canal is present on maps from 1936 to 1983.

5.4.2 Historical Maps

Sanborn Maps constitute a source of prior site uses of real property for many cities and towns in the U.S. The maps were originally created to assist insurance underwriters in understanding the potential fire risk of structures requiring insurance; however, they are also useful in determining the previous uses of a property. Sanborn Maps often contain information relating to uses of individual structures, location of certain petroleum and chemical storage tanks, and the storage of other potentially toxic substances. Sanborn Maps begin their coverage in 1867 and continue through the 1990s.

EDR searched for Sanborn Maps. This search did not identify Sanborn Map coverage for the area of the Property.

5.4.3 Aerial Photographs

Aerial photographs provide visual documentation of site conditions at the time of the photographs. Activities such as dumping or industrial use of a site can often be discerned through the examination of historical aerial photographs. The TEJV reviewed historic aerial photographs provided by EDR. Aerial photographs are included in Appendix D. The following is a synopsis of the aerial photographs reviewed.

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Year	Property	Adjacent and Surrounding Properties
1950	Northeast and southwest portions under cultivation, with residence visible in northeast area. Northwest corner (NWC) and southeast corner (SEC) undeveloped. Canal crossing Property is visible.	Primarily undeveloped and agricultural land to the north and residential development to the south and southeast. Woodruff Avenue, Los Ebanos, and Tulane Avenue are present.
1962	A commercial building (Coca Cola) is present on the NWC of the Property and Northside Baptist Church is present on the SWC. The canal is visible. Two residences are present along the south border of the Property. The residence in the northeast area in 1950 is not present.	Primarily undeveloped and agricultural land to the north and residential development to the west, south and southeast. The city has a water tower across from the NWC of the Property.
1977	The commercial building (Coca Cola) is present on the NWC of the Property and Northside Baptist Church is present on the SWC. Remnants of the filled canal are visible. Two residences are present along the south border of the Property.	The area surrounding the Property is highly developed. Residential neighborhoods are present to the south, southwest and west. State Highway 77/83 is present to the north and east, and businesses are located along the frontage roads. A gasoline service station is present to the northwest. An apartment building is present to the east as is one single family residence. The buildings across Los Ebanos are all present.
1980	This photograph is very small scaled. The commercial plant (Coca Cola) is visible on the NWC of the Property. Other features are too small to reliably determine.	The area surrounding the Property is highly developed. Residential neighborhoods are present to the south, southwest and west. State Highway 77/83 is present to the north and east and businesses are more developed along the frontage roads than in the 1977 photograph. A gasoline service station is present to the northwest. Apartment building is present to the east. The buildings across Los Ebanos are all present.
1995	The commercial building (Coca Cola) is present on the NWC of the Property with some additions from the 1977 photograph; the parking lot has been extended to south. Northside Baptist Church is present on the SWC. Two residences are present along the south border of the Property. Trees have been cleared from the northeast portion of the Property.	The area surrounding the Property is highly developed. Residential neighborhoods are present to the south, southwest and west. Commercial development has occurred to the northwest beyond the residential neighborhood. State Highway 77/83 is present to the north and east, and businesses are located along the frontage roads at levels similar to those observed during the site reconnaissance. A gasoline service station to the northwest and a fuel island are visible. Apartment building is present to the east as is one single family residence. The buildings across Los Ebanos are all present.
2004	All buildings on the Property have been demolished. Some small asphalt parking areas are present at the NWC and west central boundary. A staging area for construction debris is present on the northeast portion of the Property.	The area surrounding the Property is highly developed. Residential neighborhoods are present to the south, southwest and west. Commercial development has occurred to the northwest beyond the residential neighborhood. State Highway 77/83 is present to the north and east and businesses are located along the frontage roads at levels similar to those observed during the site reconnaissance. A gasoline service station is present to the northwest. Tulane Apartments are present to the east as is one single family residence. The buildings across Los Ebanos are all present, but the city water tower has been removed.
2005	All buildings on the Property have been demolished. Some small asphalt parking areas are present at the NWC and west central boundary. Trees have been cleared from most of the Property.	Almost identical to the 2004 photograph.

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5.4.4 City Directories

City directories provide tenant listings, by address, for every year covered by the directory service. The EDR City Directory Abstract included a directory review at approximately 5-year intervals from 1966 through 1982. The address 1834 Los Ebanos Boulevard is listed as Coca Cola Bottling Company from 1968 until 1982. A complete copy of the EDR City Directory Abstract is included in Appendix D.

5.4.5 Chain of Title

A historical chain-of-title report was ordered for the Property from NETR Real Estate Research and Information. The Property is made up of several parcels that have been purchased and merged together over their history of ownership. As a result, five chains were necessary to research the entire Property. The chain-of-title report (Appendix D) indicated that the parcels that comprise the Property have been owned by Mayfair Minerals (Coca Cola), Northside Baptist Church, Woodruff Avenue Baptist Church, Brownsville United Pentecostal Church, TH Tallman Farms, Water Tower Development corporation, and various private individuals since the earliest date of the title search, which was 1926. The various properties have changed ownership at least nineteen times since then. The current owners of the Property, Vannie Cook Trusts, purchased the various parcels on July 14, 1986, December 8, 1994, December 2, 1994 and January 1, 1995.

5.4.6 Previous Reports

TEJV was not provided with any previous reports or documents related to the Property.

5.5 Historical Use Information on Adjoining Properties

Historical uses of adjoining properties as identified in available historical resources are described in Sections 5.4.1 to 5.4.4.

The Pronto No. 9 is located to the northwest of the Property. It is an LPST site, but no remediation was required by TCEQ and the case was closed in 1992. Two USTs were removed at the site in 2007, but that removal did not constitute an LPST.

The U.S. Border Patrol office, across East Los Ebanos to the north, had two USTs removed in 1996, but was not determined to be an LPST site.

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6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

The TEJV conducted a site visit on February 3, 2009, to obtain information for the ECP Report. The Property was represented by Mr. Brisnahan of Vannie Cook Trusts during a telephone interview, but TEJV was unaccompanied during the site visit. The purpose of the site inspection was to identify any Recognized Environmental Conditions associated with the Property. There were no limiting conditions that affected TEJV's ability to conduct the site reconnaissance.

The site reconnaissance was conducted in a systematic manner, and entailed walking around the boundary of the Property, then back and forth across the Property at four separate intervals equidistant between the north and south boundary in a zigzag pattern from the east boundary to the west boundary. The adjoining property boundaries were viewed from the Property boundaries or streets during the site reconnaissance in order to provide complete coverage of the Property. Adjacent properties were also viewed from those vantage points.

6.2 General Site Setting

The Property includes 10.89 acres of land, which is irregular in shape being roughly the shape of a triangle with the ninety degree angle being the intersection of Woodruff Avenue and Tulane Avenue at its southwest corner. The site is generally level, but hummocky, and contains no perceptible slope. From the north boundary along Los Ebanos Boulevard, the Property slopes slightly toward the south and southeast, based on a review of topographic maps and observed storm water flow patterns along adjacent streets. The Property has thick mixed Johnson and Bermuda grass that is mowed to a height of approximately 4 inches on the north two-thirds and approximately 18 inches on the south one-third. The grass is underlain by blackberry vines and vetch. The Property contains several trees, near its center where a short section of wire fence is located.

Historically, the northwest portion of the Property was the Coca Cola Bottling Plant. The southwest portion was a church and was called Northside Baptist Church, Woodruff Avenue Baptist Church, Brownsville United Pentecostal Church or the New Life Center United Pentecostal Church, all being housed in the same structure, but at different periods of time. The northern two-thirds of the Property was historically separated from the southern one-third by an earthen drainage ditch (canal). The south central and southeastern portions the Property have had single family residences. The northeastern portion of the site has historically been generally undeveloped, except for one residence in the 1950s and periods when it appears to have been used to stage demolition debris from the Coca Cola Bottling Plant, church building, and/or residence.

The area in the vicinity of the Property consists of mixed-use properties including an office furniture supply, attorney's office, and U.S. Border Patrol office across East Los Ebanos Boulevard to the north; single family residences to the south across Tulane Avenue; to the west is Don Carlos food catering and single family residences across Woodruff Avenue and; to the east is the Tulane Apartments and State Highway 77/83.

6.3 Exterior Observations

6.3.1 Storage Tanks

No aboveground storage tanks or USTs were observed on the Property during the TEJV's site visit.

6.3.2 Odors

No strong or pungent odors were noted on the Property during the TEJV's site visit.

6.3.3 Pools of Liquids

No pools of hazardous or unidentified substances were observed on the Property during the TEJV's site visit.

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6.3.4 Drums

No drums were observed on the Property during the TEJV's site visit.

6.3.5 Hazardous Substance and Petroleum Products Containers

No hazardous substance or petroleum products containers were observed on the Property during the TEJV's site visit.

6.3.6 Unidentified Substance Containers

No unidentified substance containers were observed on the Property during the TEJV's site visit.

6.3.7 PCBs

One pole-mounted transformer is located along the east central boundary of the Property near the northeast corner of the Tulane Apartments along State Highway 77/83 frontage road. The transformer was marked with yellow numbers, and Mr. Brisnahan stated that he did not think it was owned by the Property owner.

6.3.8 Pits, Ponds, And Lagoons

No pits, ponds, or lagoons were observed on the Property during the TEJV's site visit and no evidence of pits, ponds, or lagoons were observed on historical aerial photographs associated with the Coca Cola Bottling Plant property.

Historic topographic maps, aerial photographs, and soil maps on the U.S. Soil Conservation Service Website show a canal containing water present on the Property from at least 1936 to 1970. The canal appears to have provided drainage between a lake to the west of the Property and the Resaca de la Palma east of the Property. By 1977 the canal was filled. The unknown source of fill material in the canal represents a business environmental risk for the Property.

6.3.9 Stained Soil or Pavement

No stained soil or pavement was observed on the Property during the TEJV's site visit.

6.3.10 Stressed Vegetation

No stressed vegetation was observed on the Property during the TEJV's site visit.

6.3.11 Solid Waste

Several small brush piles were observed around the perimeter of the Property. Piles near the south central site boundary, the northwest corner of the Tulane Apartments, and the northeast corner of the Property each contained discarded automotive tires. A total of three tires were observed on the Property.

An approximately 30 to 40 cubic yard pile of soil was observed near the south central boundary of the Property. It was comprised of silty sand and gravel. TEJV inspected the soil pile for staining or petroleum odors; none was observed or noted. Mr. Brisnahan indicated he was unaware of the soil pile on the Property and that no one had permission to place the soil there. Therefore, the soil pile appears to have been illegally dumped on the Property. The presence of a soil pile of unknown origin on the Property is considered a business environmental risk.

6.3.12 Wastewater

No wastewater is generated on the Property. Storm water at the Property would primarily be captured by infiltration or flow to storm water conveyances along Los Ebanos Boulevard and Woodruff Avenue on the north and west Property boundaries, respectively.

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6.3.13 Wells

No groundwater wells, domestic or otherwise, were observed on the Property during the TEJV's site visit.

No water wells were identified in the CER on the Property. The CER identified 55 wells within one mile of the Property. Four of the wells were water wells in excess of 200 feet deep and were currently in operation. Eight of the wells were monitor wells that were currently located at gasoline stations or commercial facilities. Forty-three wells were monitor wells that had been plugged.

Based on a review of LPST files obtained from TCEQ, twelve monitor wells (MW-1 to MW-12) and three recovery wells RW-01, RW-02 and a 36-inch recovery well were present at the Brownsville Coca Cola Bottling Plant. Monitor wells MW-1, MW-3 to MW-6, MW-8, MW-9, and MW-12 were plugged on July 18 and 19, 1994. The remaining monitor and recovery wells were plugged on April 19, 1995.

TEJV reviewed the Railroad Commission of Texas database information and found no active oil wells or pipelines on the Property.

6.3.14 Septic Systems

No septic systems were observed on the Property during the TEJV's site visit. However, residences have been located on the Property at various times from the 1950s until 1995. Early aerial photographs indicate that the residential neighborhoods in this part of Brownsville were not developed, and the area was rural. Therefore, it is reasonable to deduce that some of these homes may have used septic systems.

There is no evidence that Coca Cola Bottling Plant would have utilized a septic system.

6.4 Interior Observations

No structures were present on the Property during the TEJV's site visit. One concrete building foundation, approximately forty feet square was observed on the south central portion of the Property. Floor tile, linoleum, and black mastic were observed to be present on the foundation.

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7.0 INTERVIEWS

This section presents summaries of relevant information obtained from the interviews conducted by the TEJV between February 3 and 11, 2009. A list of persons interviewed, as well as those from whom an interview was requested, is in Section 2.2.2 of this ECP Report. Interview documentation is presented in Appendix F.

7.1 Interview with Owners

7.1.1 Interview Information

Mr. Brisnahan was interviewed by telephone on February 11, 2009, and provided the following information regarding the Property.

- Vannie Cook Trusts purchased the parcels that make up the Property between approximately 1986 and 1995.

- All of the buildings on site including Coca Cola Bottling, the church, and one residence were demolished in 1995 at the same time.

- The Property was historically utilized as Coca Cola, various churches, and several residences (at various times). The northeast portion of the site has historically been undeveloped. Currently grass on the site is periodically cut for hay, but no active agriculture is practiced on the Property.

- Mr. Brisnahan indicated that Coca Cola Bottling had removed USTs in the 1980s and had done some remediation. He indicated that the state granted closure for the site. He had no specialized knowledge, experience, or obvious indicators that point to the presence or likely presence of contamination related to other parcels at the Property or nearby properties. He indicated that reports existed for cleanup activities and the demolition of the buildings. He stated that he would look for them and provide them to TEJV when they were located. To date, Mr. Brisnahan has not provided copies of any reports.

- Mr. Brisnahan knew of no environmental cleanup liens filed or recorded against the Property. Mr. Brisnahan knew of no activity and land use limitations, such as engineering controls, land use restrictions or institutional controls, in place on the Property and/or filed or recorded in a registry under federal, tribal, state or local law.

- Mr. Brisnahan stated that he began working for Vannie Cook Trusts in 1993, but that he was not aware of any construction activity other than the demolition of the buildings at the Property in 1995. He was unaware of any construction debris not related to the demolition of the buildings, as observed by TEJV in a 2004 aerial photograph. He was unaware of any temporary roads or storage/borrow areas for earthen materials on the Property. He indicated that he was unaware of the presence of the soil pile currently on the Property. He was also unaware that a canal had been on the Property from approximately 1936 until approximately 1970.

Subsequent to the site reconnaissance, Mr. Brisnahan was asked whether he was aware of: (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products. The interviewee responded that he was not aware of any proceedings against the Property.

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7.1.2 Helpful Documents

The interviewee did not provide the TEJV with any helpful documents or previous environmental assessments of the Property. However, he did indicate that environmental reports exist for the Coca Cola Bottling Plant and the demolition of the buildings. He indicated that he would attempt to locate the reports and provide them to TEJV.

7.2 Interview with Site Manager

The Property is undeveloped; therefore, a site manager was not available at the Property. Mr. Brisnahan was interviewed as the key site manager, as discussed in Section 7.1.1.

7.3 Interviews with Occupants

The Property is not occupied.

7.4 Interviews with Local Government Officials

7.4.1 Interview Information - TCEQ Central Records

TEJV filed an email request for LPST files associated with the Coca Cola Bottling Plant and the Pronto No. 9 convenience store. On February 6, 2009, TEJV received a reply via email from Tanzi Tabassum of TCEQ indicating that the file was being copied and sent to TEJV. The TCEQ file information was received on February 10, 2009 and it has been added to Section 5.1.2 of this report.

7.4.2 Interview Information - City of Brownsville Fire Marshall

Inspector Chris Gracia with the City of Brownsville Fire Marshall's Office was interviewed by telephone on February 9, 2009, regarding any record of responses to incidents involving hazardous material spills or releases in the Property vicinity. Inspector Gracia indicated that he was unaware of any responses by the fire department. He wrote down the Property address and indicated that he would look at the Fire Marshall's files for information. He indicated that the Fire Department did not have a hazardous materials response team until the mid 1990s and that they did not keep files on hazardous materials responses prior to 1995.

7.4.3 Interview Information - City of Brownsville Health Services

TEJV contacted David Gomez, Inspector with the City of Brownsville Health Services, regarding environmental files or responses related to the Property, specifically the Coca Cola Bottling Plant. Mr. Gomez indicated Health Services did not maintain UST or other environmental (waste water, etc.) files. He referred TEJV to the City Secretary.

7.4.4 Interview Information - City of Brownsville City Secretary

The TEJV contacted Maggie Martinez in the City of Brownsville City Secretary office. Ms. Martinez indicated that environmental files would come from state agencies and the city engineer kept other files like waste water. She stated the only City Secretary office files would be building permits and related materials.

7.4.5 Helpful Documents

The local government officials interviewed did not provide the TEJV with any helpful documents pertaining to the Property.

7.5 Interviews with Others

TEJV did not conduct interviews with anyone other than those individuals listed in Sections 7.1 and 7.4.

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8.0 FINDINGS

This section presents findings regarding known or suspected de minimis conditions, historical Recognized Environmental Conditions, or Recognized Environmental Conditions identified at the Property during the course of this ECP. This section presents only the factual indicators and evidence of the above known or suspected conditions. Evaluations and the resulting conditions are presented in the *Opinion* section (Section 9.0).

The Coca Cola Bottling Plant was formerly located on the Property. According to Mr. Brisnahan, the Coca Cola building was demolished in 1995. Coca Cola operated five USTs on the site in three separate tank pits. Two USTs were removed from a single tank pit in August 1987. At the same time two new USTs were installed to replace the removed tanks. Shortly thereafter, a 36-inch diameter recovery well was installed in the tank pit to remove PSH. In June 1989 three USTs were removed from the remaining two pits at the site and recovery systems were installed in both tank pits. In April 1990, the two replacement USTs were removed. TCEQ assigned LPST ID number 91421 to Coca Cola on the Property. In January 1993, PSH removal was reduced to hand bailing from one monitoring well (MW-10). Groundwater at the site was monitored on a regular (mostly semi-annually) basis from August 1987 to February 1994. Sampling included analyzing the groundwater for general chemistry and it was determined to be saline. This, in conjunction with a determination that neither surface water or drinking water wells were threatened, and no off-site migration had occurred led TCEQ to require that the only remediation required at the site would be removal of PSH. This was accomplished to the satisfaction of TCEQ and the site was granted closure in February 1995.

Since 1995, TCEQ has implemented the TRRP and uses TRRP guidelines to provide closure for LPST sites. TEJV reviewed TCEQ files related to the Coca Cola Bottling Plant LPST site and compared them to TRRP guidelines. A report entitled Contamination Assessment Report, dated November 13, 1987 indicates that soil borings and monitor wells were drilled and installed at the site. At least one soil sample collected from monitor wells MW-2, MW-10, and MW-11 exceeded current TRRP PCLs for benzene.

TEJV also reviewed a report entitled Report of Annual Groundwater Monitoring dated November 1993 in which groundwater analytical data from 1990 to August 1993 was summarized. This report was reviewed because it was referenced in a TCEQ memorandum recommending site closure in February 1995. Samples from eleven of the twelve monitor wells contained concentrations of benzene, ethylbenzene, toluene, and xylene that are less than current TRRP PCLs and, therefore, are eligible for closure. However, monitor well MW-10 contained PSH at a thickness of 0.01 inches.

TEJV observed an approximately 30 to 40 cubic yard soil pile of unknown origin on the south central portion of the Property. According to the site contact, Mr. Brisnahan, no one has permission to store or dump soil on the Property.

Several brush piles located around the perimeter of the Property contain automotive tires. A total of three discarded tires were observed in three separate piles (one in each pile).

One concrete building foundation, approximately forty feet square was observed on the south central portion of the Property. Floor tile, linoleum, and black mastic were observed to be present on the foundation.

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Historical topographic maps and aerial photographs indicate that a drainage canal was present on the Property from at least 1936 until 1970. The canal connected a lake west of the Property to the Resaca de la Palma east of the Property. Aerial photographs indicate the canal was filled in after 1970, but before 1977. The origin of the fill material is unknown.

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9.0 OPINION

This section of the report includes the environmental professional's opinion of the impact on the conditions identified in the *Findings* section (Section 8.0). The logic and reasoning used by the environmental professional in evaluating information collected during the course of the investigation related to such conditions is discussed.

In my opinion, as the Environmental Professional conducting the investigation and preparation of this ECP Report, the Property has been impacted due to present and historical activities on the Property.

9.1 De Minimis Conditions

De minimis conditions are conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be subject to an enforcement action if brought to the attention of the appropriate government agencies. Conditions determined to be de minimis are not Recognized Environmental Conditions.

The ECP did not find evidence of a de minimis condition.

9.2 Historical Recognized Environmental Conditions

The term historical Recognized Environmental Condition means an environmental condition which in the past would have been considered a Recognized Environmental Condition, but which is not currently considered a Recognized Environmental Condition. If a past release of a hazardous substance or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by a responsible regulatory agency, this condition shall be considered a historical Recognized Environmental Condition. A historical Recognized Environmental Condition is not a Recognized Environmental Condition.

This ECP did reveal a historical Recognized Environmental Condition in connection with the Property. Remediation and closure of an LPST on the Property by the Coca Cola Bottling Plant constitutes a historical Recognized Environmental Condition, as discussed further in Section 9.3.2.

9.3 Recognized Environmental Conditions

The term Recognized Environmental Condition means the presence or likely presence of a hazardous substance or petroleum on the property under conditions that indicated an existing release, a past release, or material threat of a release of hazardous substances or petroleum products into the structures of the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be subject to enforcement action if brought to the attention of the appropriate government agencies.

This ECP revealed a Recognized Environmental Condition in connection with the Property, as discussed in Section 9.3.2.

9.3.1 Hazardous Substances

The ECP did not find evidence of a Recognized Environmental Condition involving the presence or likely presence of a hazardous substance.

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9.3.2 Petroleum

This ECP revealed one historic Recognized Environmental Condition that remains a Recognized Environmental Condition in connection with the Property that is associated with petroleum hydrocarbons.

The Coca Cola Bottling Plant was formerly located on the Property. According to Mr. Brisnahan, the Coca Cola building was demolished in 1995. Coca Cola operated five USTs on the site in three separate tank pits. Two USTs were removed from a single tank pit in August 1987. At the same time two new USTs were installed to replace the removed tanks. Shortly thereafter, a 36-inch diameter recovery well was installed in the tank pit to remove PSH. In June 1989, three USTs were removed from the remaining two pits at the site and recovery systems were installed in both tank pits. In April 1990, the two replacement USTs were removed. TCEQ assigned LPST ID number 91421 to Coca Cola for the Property. In January 1993, PSH removal was reduced to hand bailing from one monitor well (MW-10). Groundwater at the site was monitored on a regular (mostly semi-annually) basis from August 1987 to February 1994. Sampling included analyzing the groundwater for general chemistry and it was determined to be saline. This, in conjunction with a determination that neither surface water or drinking water wells were threatened, and no off-site migration had occurred led TCEQ to require that the only remediation required at the site would be removal of PSH. This was accomplished to the satisfaction of TCEQ and the site was granted closure in February of 1995.

Since 1995, TCEQ has implemented the TRRP and uses TRRP guidelines to provide closure for LPST sites. TEJV reviewed TCEQ files related to the Coca Cola Bottling Plant LPST site and compared them to TRRP guidelines. A report entitled Contamination Assessment Report, dated November 13, 1987, indicates that soil borings and monitor wells were drilled and installed at the site. At least one soil sample collected from monitor wells MW-2, MW-10, and MW-11 exceeded current TRRP PCLs for benzene. Based on this soil analytical data, the site would not be eligible for closure under current TRRP standards.

TEJV also reviewed a report entitled Report of Annual Groundwater Monitoring dated November 1993, in which groundwater analytical data from 1990 to August 1993 was summarized. This report was reviewed because it was referenced in a TCEQ memorandum recommending site closure in February 1995. Samples from eleven of the twelve monitor wells contained concentrations of benzene, ethylbenzene, toluene, and xylene that are less than current TRRP PCLs and, therefore, are eligible for closure. However, monitor well MW-10 contained PSH at a thickness of 0.01 inches, which is generally considered to be an amount acceptable to TCEQ. Although, groundwater samples meet current TRRP closure requirements, the presence of PSH in MW-10, represents a potential barrier to site closure.

Soil sample data from the 1995 Coca Cola Bottling Plant LPST site closure are above current TRRP PCLs (precluding closure under current standards) and PSH on site groundwater represents a potential barrier to site closure under current TRRP standards. The historical soil data from the LPST site exceeding current TCEQ TRRP guidelines and the potential presence of PSH constitutes a Recognized Environmental Condition.

9.4 Findings Not Resulting In Any Above Condition

TEJV observed an approximately 30 to 40 cubic yard soil pile of unknown origin on the south central portion of the Property. According to the site contact, no one has permission to store or dump soil on the Property. The presence of a soil pile of unknown origin on the Property is considered a business environmental risk.

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Several brush piles located around the perimeter of the Property contain automotive tires. A total of three discarded tires were observed in three separate piles (one in each pile). The discarded tires are considered a business environmental risk

One concrete building foundation, approximately forty feet square was observed on the south central portion of the Property. Floor tile, linoleum, and black mastic were observed on the foundation. The potential presence of asbestos-containing floor tile, linoleum and/or mastic constitutes a business environmental risk.

One other finding of environmental concern was identified on the Property. Historical topographic maps and aerial photographs indicate that a drainage canal was present on the Property from at least 1936 until 1970. The canal connected a lake west of the Property to the Resaca de la Palma east of the Property. The canal was filled in after 1970, but before 1977. The origin of the fill material is unknown. The unknown origin of the canal fill material constitutes a business environmental risk.

9.5 Additional Investigation

It is the opinion of the Environmental Professional that the current ECP Findings indicate that additional investigation is necessary to determine with certainty that, and the extent to which, the conditions described in Section 8.0 have resulted in the historic Recognized Environmental Condition, Recognized Environmental Conditions, and business environmental risk described in Sections 9.2, 9.3, and 9.4.

Soil borings should be drilled and monitor wells installed, at a minimum, in the vicinity of the former USTs at the former Coca Cola Bottling Plant. Soil samples should be analyzed for: total petroleum hydrocarbons (Method TX 1005); benzene, toluene, ethyl benzene and xylene (Method 8260B); methyl tert-butyl ether (Method 8260B); and potentially polycyclic aromatic hydrocarbons (Method 8310 or 8270). Groundwater should be observed for the presence of PSH. The findings of the Phase II ESA should be compared to current TRRP closure guidelines for Class III Groundwater. Discussions with TCEQ personnel should be conducted to ensure that TCEQ concurs with the Class III Groundwater finding. If TCEQ does not concur, then a groundwater classification study may be necessary.

The soil pile should be sampled to determine whether it contains petroleum hydrocarbons and/or hazardous substances. At a minimum, one representative composite soil sample should be collected and analyzed for: total petroleum hydrocarbons (Method TX 1005); volatile organic compounds (Method 8260B); methyl tert-butyl ether (Method 8260B); polycyclic aromatic hydrocarbons (Method 8310 or 8270); and eight RCRA metals (Method 6010B).

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10.0 CONCLUSIONS

The TEJV has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of the 10.89-acre property at the southeast corner of East Los Ebanos Boulevard and Woodruff Avenue in Brownsville, Cameron County, Texas (the Property). Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed evidence of a Recognized Environmental Condition in connection with the Property, including the following.

This ECP revealed one historic Recognized Environmental Condition and one Recognized Environmental Condition in connection with the Property that is associated with petroleum hydrocarbons.

The Coca Cola Bottling Plant was formerly located on the Property. According to Mr. Brisnahan, the Coca Cola building was demolished in 1995. Coca Cola operated five USTs on the site in three separate tank pits. Two USTs were removed from a single tank pit in August 1987. At the same time two new USTs were installed to replace the removed tanks. Shortly thereafter, a 36-inch diameter recovery well was installed in the tank pit to remove PSH. In June 1989 three USTs were removed from the remaining two pits at the site and recovery systems were installed in both tank pits. In April 1990, the two replacement USTs were removed. TCEQ assigned LPST ID number 91421 to Coca Cola for the Property. In January 1993, PSH removal was reduced to hand bailing from one monitor well (MW-10). Groundwater at the site was monitored on a regular (mostly semi-annually) basis from August 1987 to February 1994. Sampling included analyzing the groundwater for general chemistry and it was determined to be saline. This, in conjunction with a determination that neither surface water or drinking water wells were threatened, and no off-site migration had occurred led TCEQ to require that the only remediation required at the site would be removal of PSH. This was accomplished to the satisfaction of TCEQ and the site was granted closure in February of 1995. Remediation and closure of an LPST on the Property constitutes a historical Recognized Environmental Condition.

Since 1995, TCEQ has implemented the TRRP and uses TRRP guidelines to provide closure for LPST sites. TEJV reviewed TCEQ files related to the Coca Cola Bottling Plant LPST site and compared them to TRRP guidelines. A report entitled Contamination Assessment Report, dated November 13, 1987, indicates that soil borings and monitor wells were drilled and installed at the site. At least one soil sample collected from monitor wells MW-2, MW-10, and MW-11 exceeded current TRRP PCLs for benzene. Based on this soil analytical data, the site would not be eligible for closure under current TRRP standards.

TEJV also reviewed a report entitled Report of Annual Groundwater Monitoring dated November 1993 in which groundwater analytical data from 1990 to August 1993 was summarized. This report was reviewed because it was referenced in a TCEQ memorandum recommending site closure in February 1995. Samples from eleven of the twelve monitor wells contained concentrations of benzene, ethylbenzene, toluene, and xylene that are less than current TRRP PCLs and, therefore, are eligible for closure. However, monitor well MW-10 contained PSH at a thickness of 0.01 inches, which is generally considered to be an amount acceptable to TCEQ. Although, groundwater samples meet current TRRP closure requirements, the presence of PSH in MW-10, represents a potential barrier to site closure.

Soil sample data from the 1995 Coca Cola Bottling Plant LPST site closure are above current TRRP PCLs (precluding closure under current standards) and PSH on site groundwater represents a potential barrier to site closure under current TRRP standards. The historical soil data from the LPST site exceeding current TCEQ TRRP guidelines and the potential presence of PSH constitutes a Recognized Environmental Condition.

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TEJV observed an approximately 30 to 40 cubic yard soil pile of unknown origin on the south central portion of the Property. According to the site contact, no one has permission to store or dump soil on the Property. The presence of a soil pile of unknown origin on the Property is considered a business environmental risk.

Several brush piles located around the perimeter of the Property contain automotive tires. A total of three discarded tires were observed in three separate piles (one in each pile). The discarded tires are considered a business environmental risk.

One concrete building foundation, approximately forty feet square was observed on the south central portion of the Property. Floor tile, linoleum, and black mastic were observed on the foundation. The potential presence of asbestos-containing floor tile, linoleum and/or mastic constitutes a business environmental risk.

One other finding of environmental concern was identified on the Property. Historical topographic maps and aerial photographs indicate that a drainage canal was present on the site from at least 1936 until 1970. The canal connected a lake west of the Property to the Resaca de la Palma east of the Property. The canal was filled in after 1970, but before 1977. The origin of the fill material is unknown. The unknown origin of the canal fill material constitutes a business environmental risk.

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11.0 DEVIATIONS

This report was prepared in general accordance with the ASTM E 1527-05 Standard. There are no deviations from the Standard.

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12.0 ADDITIONAL SERVICES

This section outlines additional services contracted for between the User and the Environmental Professional (TEJV), including but not limited to, a broader scope of assessment, more detailed conclusions, liability/risk evaluations, recommendation for Phase II testing, remediation techniques, etc. Sections 12.8 and 12.9 are intended to provide *only a cursory review* of these items at the time of the site reconnaissance, and may not satisfy the requirements as set forth by the National Environmental Policy Act.

12.1 Asbestos-Containing Materials

The Property consists of 10.89 acres of land with no buildings. One concrete building foundation, approximately forty feet square was observed on the south central portion of the Property. Floor tile, linoleum, and black mastic were observed to be present on the foundation. The floor tile, linoleum, and associated mastic are considered to be potentially asbestos containing building materials, and therefore constitute a business environmental risk.

12.2 Radon

Radon is a naturally occurring colorless, odorless gas that is a by-product of the decay of radioactive materials potentially present in bedrock and soil. Radon gas may enter the lowest level of a building through floor cracks, structural joints, or plumbing conduits. The concentration of radon gas in a building depends on subsurface soil conditions, the integrity of the building's foundation, and the building's ventilation system. The potential adverse health effects associated with radon gas depend on various factors, such as the concentration of the gas and duration of exposure. The EPA guidance action level for annual residential exposure to radon is 4.0 picoCuries per liter (pCi/L) of air. The guidance action level is not a regulatory requirement for private owners of real property, but is commonly used for comparison purposes to suggest whether further action at a building may be prudent.

The TEJV reviewed statistical information provided in the CER, which reported radon concentrations in Cameron County, Texas, for the one site tested was 0.400 pCi/L in the first level living area, which is below the 4.0 pCi/L action level established by the EPA. Readings collected from basements were not reported. Cameron County is located in EPA Radon Zone 3, which has an average indoor radon level of less than 2 pCi/L.

12.3 Lead-Based Paint

The Property consists of 10.89 acres of land with no structures. No suspect lead-based paint containing materials were identified on the Property during the TEJV's site visit.

12.4 Mold

The Property consists of 10.89 acres of land with no structures. No mold issues were identified on the Property during the TEJV's site visit.

12.5 100-Year Flood Zone

A review of the Federal Emergency Management Agency Flood Insurance Rate Map of Denton County, Texas (Flood Plain Panel Number 4801030010B), indicates that the Property is not located within the 100-year flood zone (Appendix G).

12.6 Wetlands

The USACE and EPA jointly define wetlands as "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

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According to the USDA Natural Resources Conservation Service Web Soil Survey data, the soils on the Property do not meet the requirements for a hydric soil indicative of wetlands. However, historic topographic maps, aerial photographs, soil survey data and flood insurance maps all show a canal crossing the Property from at least 1936 until between 1970 and 1977. During this time, the canal contained water and may have formerly been considered a wetland.

12.7 Coastal Zone

According to the Texas General Land Office Website, part of Cameron County is in the state coastal management zone. TEJV reviewed a General Land Office map of the coastal zone boundary and compared it to the USGS East Brownsville Quadrangle. Based on that review, the Property lies approximately 1,500 feet west of the coastal management zone boundary.

12.8 Threatened and Endangered Species

No Natural Resources Evaluations or Biological Evaluations have been conducted for the Property. TEJV reviewed the U.S. Fish and Wildlife Service Endangered Species List for Cameron County, Texas, which listed three birds, two mammals and two flowering plants. Five reptiles (all sea turtles) and one mammal (manatee) were also listed.

12.9 Cultural Resources

Based on a review of historic maps and aerial photographs of the Property, it appears that there are no structures or landforms that are eligible for inclusion as a National Historic Property, Place, or District under the National Register of Historical Places.

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13.0 REFERENCES

- Cameron County Central Appraisal District. Website at www.cameroncad.com.

- City of Brownsville. Website at www.cob.us.

- Environmental Data Resources, Inc. 440 Wheelers Farms Road, Milford, Connecticut 06461.

- Federal Emergency Management Agency Map Service Center. Website at www.msc.fema.gov.

- Google Earth™. Aerial photograph dated 2007. Website http://maps.google.com. (Copyright material not available for reproduction or copying.)

- Gomez, David. Engineer, City of Brownsville - Health Department, (956) 542-3437. Telecommunication on February 9, 2009.

- Gracia, Chris. Fire Inspector, City of Brownsville Fire Marshall, (956) 548-6075. Telecommunication on February 9, 2009.

- Martinez, Maggie. City Secretary, City of Brownsville, (956) 548-6001. Telecommunication on February 9, 2009.

- Railroad Commission of Texas. Database information from Website http://www.rrc.state.tx.us/data/online/index.php.

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- U.S. Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey at Website http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

- U.S. Fish and Wildlife Service. Endangered Species List at Website http://www.fws.gov/southwest/es/EndangeredSpecies/

- U.S. Fish and Wildlife Service, National Wetland Inventory Maps, Wetland Mapper. Website http://www.fws.gov/wetlands/Data/mapper.html

- U.S. Geological Survey. Ground Water Atlas of the United States - Segment 4 Oklahoma Texas, 1996.

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14.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

_____

Kerry W. Hill Date
Geologist
TEJV

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15.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Résumés of the Environmental Professionals responsible for preparing this report are included in Appendix H.

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APPENDIX A
Site Vicinity Map

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APPENDIX B
Site Plan

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APPENDIX C
Site Photographs

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APPENDIX D
Historical Research Documentation

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- Environmental Data Resources, Inc. *The EDR Historical Topographic Map Report*. Brownsville ECP, North Expressway 77 at East Los Ebanos Boulevard, Brownsville, TX 78520, Inquiry No. 2411620.2s (February 2, 2009). 440 Wheelers Farms Road, Milford, Connecticut, (800) 352-0050.

  — *The EDR Aerial Photo Decade Package*. (February 2, 2009). Inquiry No. 2411620.5.

  — *The EDR-City Directory Abstract*. (February 3, 2009). Inquiry No. 2411620.6.

  — *Certified Sanborn Map Report*. No Coverage Documentation. (February 2, 2009). Inquiry No. 2411620.3.

- NETR Real Estate Research & Information. Historical Chain of Title Report. Project No. N09-00133, February 9, 2009.

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APPENDIX E
Regulatory Records Documentation

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APPENDIX F
Interview Documentation

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APPENDIX G
Supporting Documentation

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- Department of the Army. Site Survey Report, Brownsville, Texas. September 12, 2008. North Little Rock, Arkansas.

- Federal Emergency Management Agency Map Service Center. Website at www.msc.fema.gov. Flood Insurance Rate Map.

- Texas Commission on Environmental Quality. Database information from Website http://www.tceq.state.tx.us/nav/data/index.html

- Texas Commission on Environmental Quality. Information received from Freedom of Information Act request concerning files for the Brownsville Coca Cola Bottling Plant and the Pronto No. 9 convenience store.

- Texas General Land Office. Coastal zone map information from Website http://www.glo.state.tx.us/coastal/cmp.html.

- U.S. Fish and Wildlife Service. Wetlands Online Mapper from Website http://www.fws.gov/wetlands/Data/Mapper.html.

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APPENDIX H
Qualifications of the Environmental Professional

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APPENDIX E
Phase II Subsurface Investigations Report

ENSAFE INC. ENVIRONMENTAL AND MANAGEMENT CONSULTANTS

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June 25, 2009

Mr. Lenny Gunnell
U.S. Army Corps of Engineers, Louisville District
600 Dr. Martin Luther King, Jr. Place
Room 921
Louisville, KY 40202

Re: *Limited Phase II Subsurface Investigation - Former Coca-Cola Bottling Plant Brownsville, Texas*

Dear Mr. Gunnell:

The Terraine-EnSafe Joint Venture conducted a limited Phase II subsurface investigation at the referenced location on May 12 and 13, 2009. The Phase II investigation was conducted in response to the identification of historical recognized environmental conditions associated with the former Coca-Cola Bottling Plant location (subject property) during the performance of an Environmental Condition of Property survey conducted in January 2009. The Phase II investigation included drilling and soil sample collection in three areas of the subject property that historically contained underground storage tanks (USTs). Additionally, three temporary groundwater monitoring wells were installed and sampled, one in each of the former UST areas.

Project Background and Location

The subject property consists of approximately 10.89-acres of undeveloped property, situated at the southeast corner of the intersection of Woodruff Avenue and East Los Ebanos Boulevard in Brownsville, Cameron County, Texas (Figure 1, Attachment A). The northwest half of the property was formerly occupied by a Coca-Cola Bottling Plant, which consisted of two large single-story buildings and associated out buildings (Figure 2, Attachment A). These structures were removed from the property in 1995. The facility operated a total of five USTs located in three separate tank pit areas, which were reportedly located between the two larger buildings. These USTs were removed from the property between 1987 and 1990, at which point the Texas Commission on Environmental Quality (TCEQ) assigned Leaking Petroleum Storage Tank ID Number 91421 to the facility. In response, a Phase II site investigation was conducted, which included a soil gas survey, soil sampling, groundwater monitoring well installation (on and offsite) and sampling and phase separated hydrocarbon (PSH) recovery, which continued at the subject property until approximately 1993. In January 1993, PSH recovery was reduced to hand-bailing. Annual and semi-annual groundwater monitoring was also conducted during this time. In February 1995, based on field investigation results and PSH recovery efforts, the TCEQ concluded that no further corrective action or monitoring was warranted. This decision was

based on several factors including low concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) in groundwater, the lack of recoverable PSH at the site, total dissolved solids (TDS) content greater than 10,000 milligrams per liter (mg/L), no threatened water wells and/or surface water impacts, and no offsite migration. On February 17, 1995, the TCEQ granted site closure.

Field Activities

A Geoprobe 6620DT direct push technology rig equipped with 4-foot (ft) steel barrel core samplers containing acetate sleeves was used to advance soil borings at each location. Borings were sampled continuously from ground surface to the termination depth, at approximately 15 ft below ground surface (bgs). Upon retrieval at the surface the core barrel was opened, the acetate sleeve removed, and split length-wise exposing the soil. Representative soil samples were collected for field screening using a photo-ionization detector (PID), lithology description and laboratory chemical analysis. Soils located above the water table, exhibiting the highest field screening results or demonstrating evidence of impact through visual and/or olfactory observations, were selected for laboratory analysis. Two soil samples were selected from each of the ten borings.

One soil boring from each of the three areas investigated on the subject property was selected for 1-inch diameter temporary groundwater monitoring well installation. Subsequent to collecting grab samples with disposable bailers, the temporary groundwater monitoring wells were removed from the ground.

At the completion of the project, each of the soil borings was backfilled to ground surface with bentonite pellets. Investigation derived waste in the form of soil cuttings generated during the drilling activities were contained in a steel 55-gallon steel drum, which was labeled appropriately and staged onsite pending disposal.

Phase II Media Specific Screening Levels

Soil and groundwater samples, collected during the Phase II limited subsurface investigation, were compared to the following regulatory criteria:

- TCEQ Applicable Groundwater Protective Soil Concentrations and Target Groundwater Concentrations for Class III Groundwater located in Appendix A of RG-36 (Risk Based Corrective Action for Leaking Storage Tank Sites), January 1994.

Soil Assessment

A total of ten soil borings were advanced at the subject property (Figure 3, Attachment A). These borings were located based on review of historical maps and site drawings of the Coca-Cola facility. No structures are currently present on the property; therefore, features such as adjacent streets, curbs, water valves and storm grates were used as landmarks to estimate measurements as well as the approximate locations of the former buildings and UST pits.

Additionally, adjacent streets to the west, which intersect perpendicular to Woodruff Avenue, were used as reference. Using this methodology, all of the soil borings were approximately placed between the two former single-story facility buildings.

A total of 20 soil samples were collected during the Phase II investigation. Generally, soil in the investigation area consisted of brown to dark gray, soft, plastic, silty and fine sandy clays. Field screening of soil consisted of placing a portion of each sample in a plastic Zip-loc bag and allowing it to equilibrate to outdoor ambient conditions for approximately 15 minutes. At the end of this time period, the seal of the bag was broken, the PID probe was placed in the bag and the associated reading was recorded in parts per million (ppm). During the investigation, PID readings ranged from no response (0 ppm) to 1,540 ppm. If no responses were recorded and no visual/olfactory impacts were noted in a particular boring, then the soil immediately above the soil/groundwater interface was collected for analysis. Soil boring logs have been included as Attachment B.

Subsequent to collection, all soil samples were placed in a cooler and chilled to 4° Celsius (^{o}C) with wet ice. Samples were transported for priority overnight delivery via FedEx to Accutest Laboratories in Houston, Texas, using strict chain-of-custody protocol. All soil samples were analyzed for volatile organic compounds (VOCs) including methyl tert butyl ether (MTBE) using U.S. Environmental Protection Agency (USEPA) method 8260B and total petroleum hydrocarbons (TPH) using Texas method TX1005. Additionally, the soil sample exhibiting the highest TPH concentration was analyzed for polycyclic aromatic hydrocarbons (PAHs).

Soil Sampling and Analysis

Three soil borings, SB-01 through SB-03, were advanced along the east side of Woodruff Avenue, and were intended to characterize soil in the vicinity of the westernmost UST pit locations (Figure 3). Based on historical maps, the two USTs in this area were situated end to end, parallel to Woodruff Avenue. However, it is unclear whether or not they were located in a single tank pit. A total of six soil samples, ranging from 4 to 10 ft bgs were collected from this area. PID responses ranged from 3.3 ppm to 791 ppm and strong petroleum odors were encountered in samples screened from the 8 to 10 ft interval. PID responses declined sharply below the 10-ft interval. First occurrence of groundwater was at approximately 14.5 ft bgs in SB-01 and between 9 and 10 ft bgs in SB-02 and SB-03.

Five soil borings, SB-04 through SB-08, were advanced in an area approximately 165 ft east of Woodruff Avenue, and were intended to characterize soil in the vicinity of the easternmost UST pit location (Figure 3). Based on historical maps, the two USTs located in this area were situated parallel to one another in a single pit with a fuel dispenser located on the northwest corner of the pit. A total of 10 soil samples, ranging from 6 to 14 ft bgs were collected from this area. PID responses ranged from no response to 158 ppm, with only faint petroleum odors noted in samples collected just above the soil/groundwater interface.

The first occurrence of groundwater was at approximately 10 ft bgs in all five borings at this location.

Two soil borings, SB-09 and SB-10, were advanced in an area approximately 50 ft east of Woodruff Avenue, along the northern edge of the southernmost facility building. These borings were intended to characterize soil in the vicinity of the centrally located UST pit, which contained a single UST oriented in an east-west direction adjacent to the building. Historical drawings also depict a fuel dispenser north of this UST location. A total of four soil samples, ranging from 6 to 10 ft bgs, were collected from this area and strong petroleum odors were noted from the 8 to 10 ft interval in both borings. PID responses ranged from 10.5 ppm to 1,540 ppm at the soil/groundwater interface in SB-10. PID readings in SB-10 diminished to 638 ppm at 12 ft bgs and to 5.6 ppm at 14 ft bgs. The first occurrence of groundwater was at approximately 10 ft bgs in both borings.

TPH was detected in all soil borings except SB-04, SB-06, SB-07, and SB-08 (12 to 14 ft bgs). The highest concentrations were exhibited on the western side of the subject property at SB-02, where TPH in the C6 to C12 carbon range was detected at 440 milligrams per kilogram (mg/kg), and 1,400 mg/kg in the >C12 to C28 carbon range. Currently, no TCEQ action level is available for TPH, which is only analyzed to screen for PAH sample analysis selection.

Based on the results of the TPH analysis, the soil sample collected from the 7 to 9 ft interval in SB-02 was selected for PAH analysis. A total of six PAHs including naphthalene, acenaphthene, fluorine, 2-methylnaphthalene, phenanthrene, and pyrene, were detected at low levels, below applicable TCEQ action levels listed in RG-36 for Applicable Groundwater Protective Soil Concentrations - Class III Groundwater. Since PAHs were below action levels in the soil sample that contained the highest TPH concentration, no other soil samples required analysis for PAHs.

No VOCs were detected in the following soil boring intervals: SB-02 (4 to 6 ft bgs), SB-04 (6 to 8 ft bgs), SB-05 (6 to 8 ft bgs), SB-06 (6 to 8 ft bgs and 12 to 14 ft bgs), SB-07 (6 to 8 ft bgs and 8 to 10 ft bgs), SB-08 (12 to 14 ft bgs), and SB-10 (6 to 8 ft bgs). The remaining soil sample intervals exhibited low levels of VOCs including n-Butylbenzene, sec-Butylbenzene, ethylbenzene, isopropylbenzene, methyl ethyl ketone, naphthalene, n-Propylbenzene, and toluene. Additionally, MTBE was detected in a single boring, SB-03, in both the 6 to 8 ft bgs and 8 to 10 ft bgs sampling intervals. All of the detected VOCs were below the applicable TCEQ action levels listed in RG-36 for Applicable Groundwater Protective Soil Concentrations - Class III Groundwater.

Table 1 is included as Attachment C, and presents a summary of the soil sample analytical data. The hard copy analytical report for soil samples collected during the investigation has been included as Attachment D.

Groundwater Assessment

Three of the soil borings, one from each investigation area, were selected for temporary groundwater monitoring well installation. Temporary well 1 (TW-01) was installed in SB-03 (westernmost UST Pit[s]), TW-02 was installed in SB-05 (easternmost UST pit), and TW-03 was installed in SB-03 (central UST pit). Each 1-inch diameter polyvinyl chloride well was installed to approximately 15 ft bgs, and consisted of 10 ft of screen and 5 ft of riser pipe. Subsequent to installation, each well was allowed to sit overnight in order to obtain static water level. Water levels measured the day following installation ranged between 8.4 and 8.6 ft bgs. No PSH was observed in any of the three temporary wells.

Groundwater Sampling and Analysis

Grab water samples were collected from each of the temporary wells using a 0.75-inch diameter, Teflon lined disposable bailer. Subsequent to collection, all groundwater samples were placed in a cooler and chilled to 4°C with wet ice. Samples were transported for priority overnight delivery via FedEx to Accutest Laboratories in Houston, Texas, using strict chain-of-custody protocol. All groundwater samples were analyzed for VOCs including MTBE using USEPA method 8260B and TPH using TX1005. The groundwater sample exhibiting the highest TPH concentration was also analyzed for PAHs. Additionally, one temporary well (TW-01), was selected for general chemistry parameter analysis, which includes chloride, TDS, and sulfate.

TPH was detected in all three temporary wells. The highest concentrations were exhibited in TW-03, which was located in the central portion of the subject property. TPH in the C6 to C12 carbon range was detected at 5.43 mg/L, and 3.30 mg/L in the >C12 to C28 carbon range. Currently, no TCEQ action level is available for TPH, which is only analyzed to screen for PAH sample analysis selection.

Based on the results of the TPH analysis, the groundwater sample collected from TW-03 was selected for PAH analysis. A total of five PAHs including naphthalene, acenaphthene, fluorine, 2-methylnaphthalene, and phenanthrene were detected at low levels, below applicable TCEQ action levels listed in RG-36 for Target Groundwater Concentrations - Class III Groundwater. Since PAHs were below action levels in the groundwater sample that contained the highest TPH concentration, no other groundwater samples required analysis.

Several VOCs were detected in all three temporary monitoring wells at levels below applicable TCEQ screening values. These include acetone (a likely laboratory artifact), benzene, n-Butylbenzene, sec-Butylbenzene, ethylbenzene, isopropylbenzene, naphthalene, n-Propylbenzene, toluene, and xylene. The only well that contained all four BTEX constituents was TW-03. A low concentration of MTBE was also detected in TW-03. The highest concentration of MTBE, however, was detected at 3.55 mg/L in TW-01, which exceeds the TCEQ Petroleum Storage Tank (PST) Program Action Level (Class I and II Groundwater) of

0.36 mg/L. No action level is available for MTBE in the RG-36 list of Target Groundwater Concentrations for Class III Groundwater. Telephone conversations, with TCEQ PST Division personnel familiar with the project site file indicated that since MTBE was not considered a target chemical of concern at the time the site was closed (RG-36 Guidance Document) the site would not be reopened based solely on the current detection of MTBE in groundwater.

The groundwater sample collected from TW-01 was selected for general chemistry parameter analysis. Chloride was detected at 32.3 mg/L, TDS was detected at 12,300 mg/L, and sulfate was detected at 5,810 mg/L. According to RG-36 guidance, since the TDS concentration exhibited in the sample collected from TW-01 is greater than 10,000 mg/L, a beneficial groundwater use category of Class III applies.

Table 2 is included as Attachment E and presents a summary of the groundwater sample analytical data. The hard copy analytical report for groundwater samples collected during the investigation has been included as Attachment D.

Conclusions and Recommendations

A total of 20 soil samples and three groundwater samples were collected and analyzed from the approximate locations of the three historical UST pits. Near surface groundwater was measured at approximately 8.5 ft bgs across the subject property and no PSH was encountered during sampling.

Total Dissolved Solids were detected at 12,300 mg/L, which exceeds the RG-36 guidance concentration of 10,000 mg/L for Class III groundwater.

Low levels of VOCs and PAHs are present in subject property soil and groundwater. None exceeded applicable TCEQ action levels listed in RG-36 for Groundwater Protective Soil Concentrations - Class III Groundwater. MTBE in groundwater exceeded the March, 2009 TCEQ PST Program Action Levels. However, telephone conversations with TCEQ PST Division personnel familiar with the project site file indicated that since MTBE was not considered a target chemical of concern at the time the site was closed (RG-36 Guidance Document) the site would not be reopened based solely on the current detection of MTBE in groundwater.

Current investigation results are consistent with the information reviewed in the TCEQ project file, which was used to grant site closure on February 17, 1995; therefore, site conditions currently meet these closure requirements. Since subject property groundwater is less than 15 ft bgs, and considering the planned future use for the subject property, the health effects from potential inhalation and dermal contact by site workers must be evaluated during construction activities in accordance with the August 12, 1997, TCEQ interoffice memorandum entitled *Adjustment to March 6, 1997 Protective Concentrations in Groundwater for Construction*

Worker Exposure to Account for Time-Averaged Exposure. A copy of this memorandum has been included as Attachment F.

If you have any questions regarding this limited Phase II subsurface investigation or the attached documentation, please feel free to contact me at (513) 621-7233 or jrathbone@ensafe.com.

Sincerely,

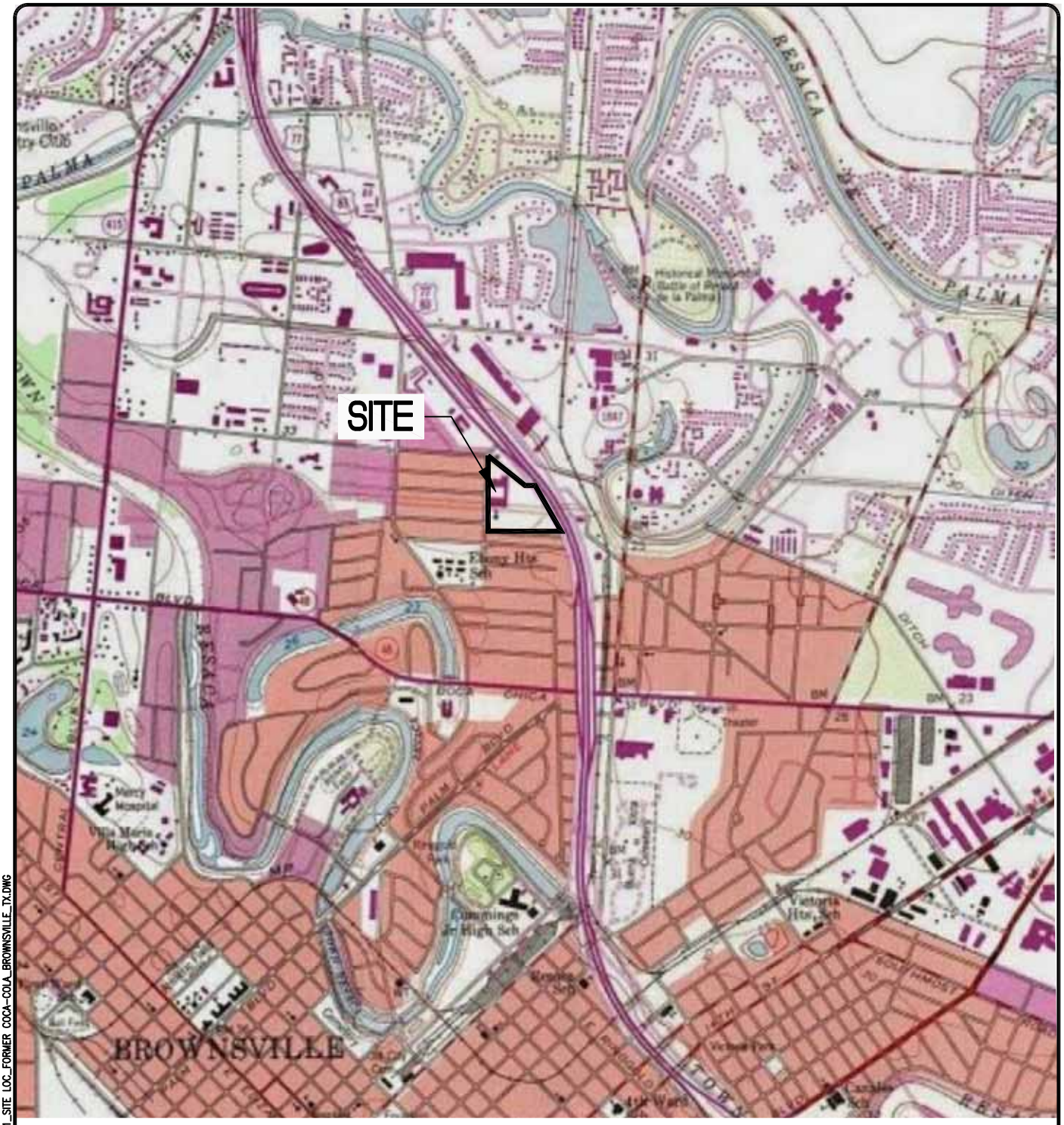
EnSafe Inc.

By: James Rathbone
Senior Project Manager

Attachments

Attachment A

Figures



0 2000 4000

SCALE IN FEET

N

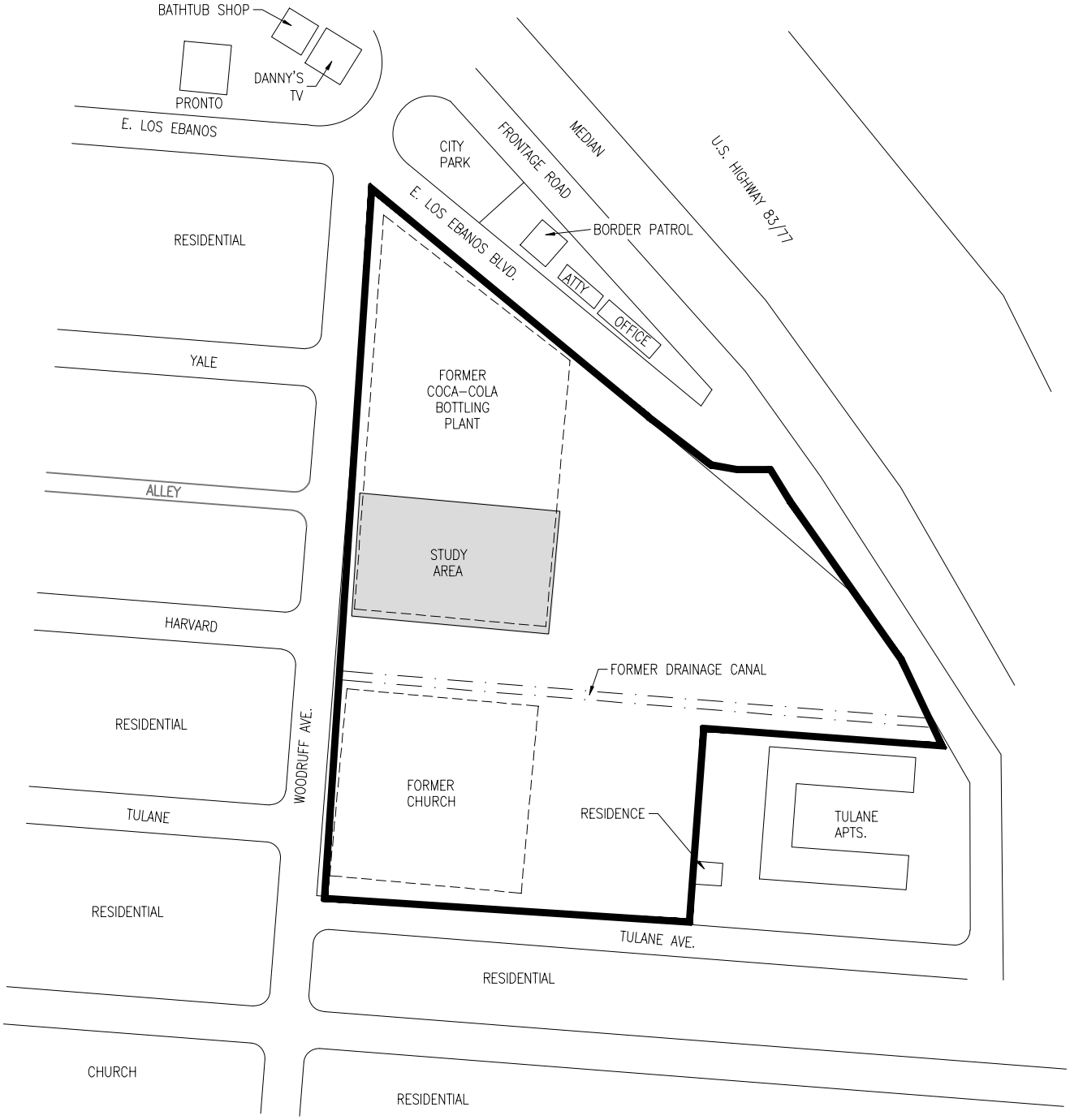
USGS TOPOGRAPHIC MAP: NATIONAL GEOGRAPHIC TOPO! – ESRI ARCGIS ONLINE, WEST BROWNSVILLE AND EAST BROWNSVILLE QUADRANGLES, TEXAS

FIGURE 1
SITE LOCATION MAP
FORMER COCA-COLA BOTTLING FACILITY
BROWNSVILLE, TEXAS

REQUESTED BY:	B.HAMBY
DRAWN BY:	BRONSON
DWG DATE:	05/20/09
DWG NO:	7792_B001

TERRAINE
ENSAFE
8(a) joint venture

C:\DRAW\7792_B001_SITE LOC_FORMER COCA-COLA_BROWNSVILLE_TX.DWG



NOT TO SCALE

LEGEND

— APPROXIMATE SITE BOUNDARY

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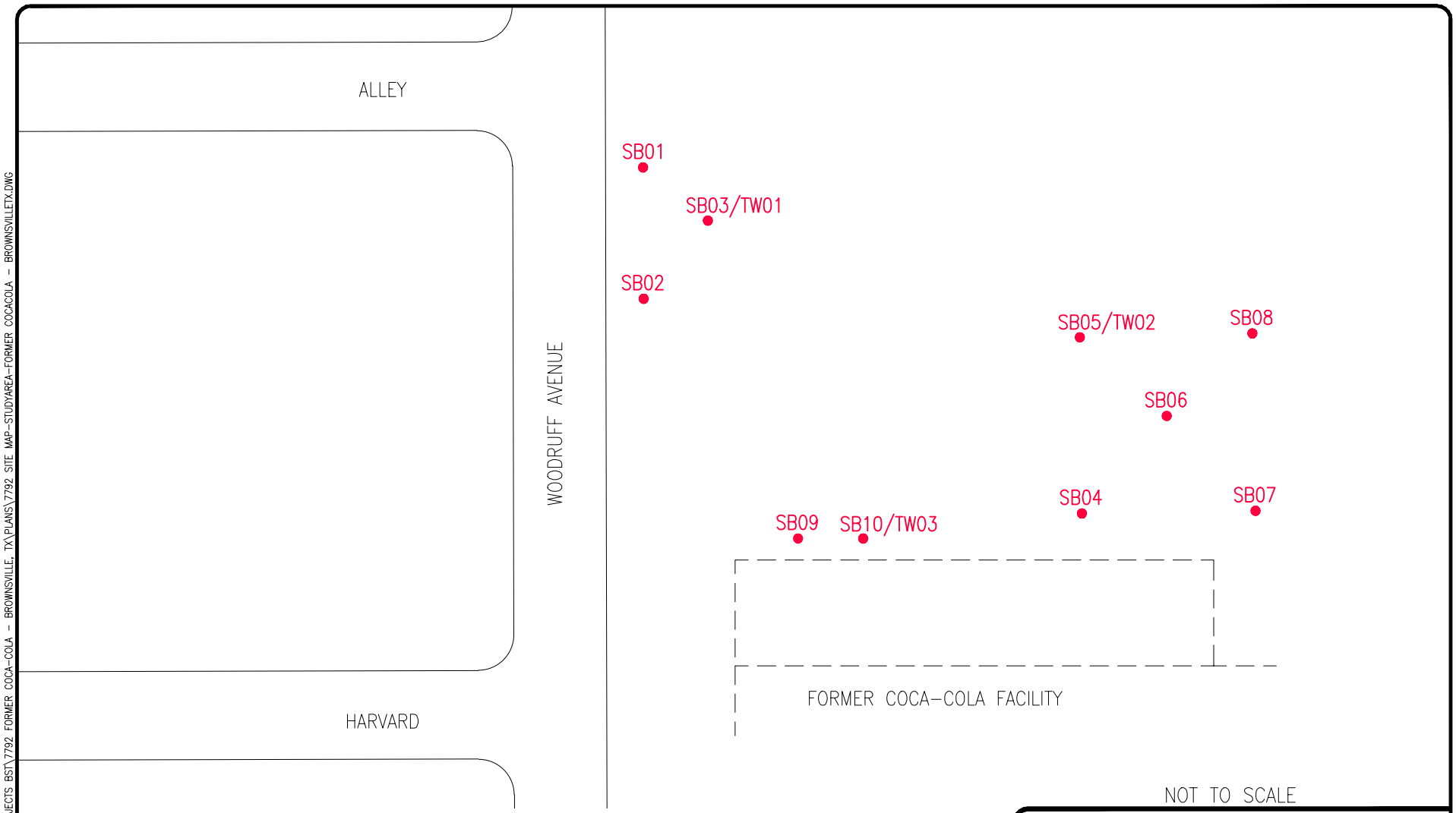
FIGURE 2
SITE PLAN
FORMER COCA-COLA BOTTLING PLANT
WOODRUFF AVE. AT LOS EBANOS BLVD
BROWNSVILLE, TEXAS 78520

REQUESTED BY: B. HAMBY	
DRAWN BY: E.ROGERS	
DWG DATE: 22MAY09	
DWG NO: 7792 F2	

TERRAINE ENSAFE 8(a) joint venture

I:\2009 PROJECTS BST\7792 FORMER COCA-COLA - BROWNSVILLE, TX\PLANS\7792 SITE MAP-STUDYAREA-FORMER COCACOLA - BROWNSVILLETX.DWG

I:\2009 PROJECTS BST\7792 FORMER COCA-COLA - BROWNSVILLE, TX\PLANS\7792 SITE MAP-STUDYAREA-FORMER COCACOLA - BROWNSVILLETX.DWG



NOT TO SCALE

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FIGURE 3
STUDY AREA
BROWNSVILLE, TEXAS 78520

REQUESTED BY:	B. HAMBY
DRAWN BY:	E.ROGERS
DWG DATE:	22MAY09
DWG NO:	7792 F2

TERRAINE
ENSAFE
8(a) joint venture

Attachment B

Soil Boring Logs

LOG OF BORING SB01

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	0950 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1040 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 7.5YR 3/1 Dark gray silty clay trace fine sands, stiff, plastic, dry.
			0				
5			0		CL		At 4.0', 7.5YR 4/2 Brown silty clay trace sands, stiff , plastic, dry.
		USBRSSB01-8	9.3		CL		At 7.0', 7.5YR 4/2 Brown silty clay trace sands, medium consistency, plastic, dry. Strong Odor at 8.0'.
		USBRSSB01-10	791		CL		At 9.0', 10YR 4/1 Dark gray silty clay trace fine sands, soft, plastic, moist.
10			6.3		CL		At 11.0', 7.5YR 4/2 Brown silty clay, trace fine sands, stiff, plastic, moist.
			13.2	▽	CL		At 14.0', 7.5YR 4/3 Brown fine sandy clay, trace silt, soft, plastic, wet.
15			0				Boring Terminated at 15.0'.

LOG OF BORING SB02

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	0900 5-12-09	EnSafe Geologist:	Brett Hamby
End:	0935 5-12-09	Boring Depth:	15'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 7.5YR 2.5/2 Very dark brown silty clay with trace fine sands, stiff, plastic dry.
			0				
5		USBRSSB02-6	3.3		CL		At 4.5', 7.5YR 3/2 Dark brown silty clay with trace fine sands, stiff, plastic, dry.
		USBRSSB02-9	421				
			266	▽	CL		At 8.0', 7.5YR 2.5/2 Very dark brown silty clay with trace sands, soft, plastic, dry.
10					CL		At 9.5', 7.5YR 3/1 Very dark gray fine sandy clay with trace silt, soft, plastic, wet, strong odor.
			7.6		CL		At 11.0', 7.5YR 4/3 Brown silty clay with trace sands, stiff, plastic, dry.
			27		CL		At 13.0', 7.5YR 4/4 Strong brown silty clay with trace sands, stiff, plastic, dry.
15			1.3				Boring Terminated at 15.0'.

LOG OF BORING SB03/TW01

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1055 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1125 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 7.5YR 6/3 Light brown sandy clay, dry.
			0		CL		At 2.5', 7.5YR 3/2 Dark brown sandy clay, plastic, soft, dry.
5			0		CL		
		USBRSSB03-8	33.6				
		USBRSSB03-10	134				
10				▽	CL		At 9.0', Grades to a softer and wetter sandy clay.
			21.2				
			4.8		CL		At 12.0', 10YR 4/3 Brown fine sandy clay with trace silt, stiff, plastic, moist.
					CL		At 14.0', 10Yr 4/3 Brown fine sandy clay with trace silt, soft, wet, plastic.
15			1.1				Boring Terminated at 15.0'. Installed TW01

LOG OF BORING SB04

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1450 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1525 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 5YR 3/2 Dark reddish brown silty clay with trace sand, stiff, plastic, dry.
			0				
5			0		CL		At 4.0', 10YR 5/3 Brown silty clay with trace sand, stiff, plastic, dry.
		USBRSSB04-8	4.3		CL		At. 6.5', 7.5YR 3/2 Dark brown silty clay with trace sand, stiff, plastic, dry.
							Sandy zone at 8.5', decreases in sand content towards bottom.
		USBRSSB04-10	158				
10				▽			
			11.6		CL		At 11.0', 7.5YR 4/2 Brown fine sandy clay with trace silt, stiff, plastic, moist.
			15.1				
15			0.4				Boring Terminated at 15.0'.

LOG OF BORING SB05/TW02

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began: 1150 5-12-09
End: 1230 5-12-09
Drilling Company: Alliance
Drilling Method: Geoprobe DPT-6620DT
Sampling Method: 4' Direct Push with Acetate

EnSafe Geologist: Brett Hamby
Boring Depth: 15.0'
Surface Conditions: Grass
Driller: Jamie Bell

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 5YR 3/1 Very dark gray fine sandy clay with trace silt, stiff, plastic, dry.
			0				
5			0		CL		At 4.0', 10YR 4/2 Dark grayish brown fine sandy clay with trace silt, stiff, plastic, dry.
		USBRSSB05-8	6.0		CL		At 7.0', 7.5YR 3/1 Very dark gray silty clay with trace sands, stiff, plastic, moist, odor.
		USBRSSB05-10	45.0		CL		At 9.0', 7.5YR 4/1 Dark gray silty clay with trace sands, soft, plastic, wet.
10			1.4	▽			
			0.1		CL		At 12.0', 5YR 3/2 Dark reddish brown silty clay with trace sands, soft, plastic, wet at 12.0' and 15.0'.
15			0				Boring Terminated at 15.0'. Insatalled TW02.

LOG OF BORING SB06

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1530 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1600 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 7.5YR 6/4 Light brown fine sandy clay with trace silt, very soft, non-plastic, dry.
			0		SC		At 2.0', 7.5YR 5/4 Brown silty sand, very soft, dry.
5			0		CL		At 4.5', 7.5YR 3/2 Dark brown fine sandy clay with trace silt, soft, plastic, dry.
		USBRSSB06-8	0				
			0				No Recovery From 8'-12'.
10				▽			
			0				
		USBRSSB06-14	0		CL		At 12.0', 7.5YR 4/3 Brown fine sandy clay with trace silt, stiff, plastic, moist.
15			0				
							Boring Terminated at 16.0'.

LOG OF BORING SB07

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1350 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1420 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0					CL		At 0.0', 5YR 3/1 Very dark gray silty clay with trace sands, very stiff, non-plastic, dry.
			0				
			0				
5			0				
		USBRSSB07-8	0		CL		At 6.0', 7.5YR 4/2 Brown silty clay with trace silt, very stiff, non-plastic, dry.
		USBRSSB07-10	0				
10				▽			
			0		CL		At 11.0', 7.5YR 4/2 Brown sandy clay with trace silt, stiff, plastic, moist.
			0				Same as above, sandy wet zone at 15'.
15			0				Boring Terminated at 16.0'.

LOG OF BORING SB08

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1306 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1343 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0					CL		At 0.0', 10YR 6/4 Light yellowish brown fine sandy clay, medium consistency, non-plastic, dry.
			0				
							Sand lens at 2.0'.
			0				
5			0				
					CL		At 6.0', 5YR 3/2 Dark reddish brown fine sandy clay, soft, plastic, dry.
			0				
			0				
10				▽	CL		At 10.0', 7.5YR 3/1 Very dark gray fine sandy clay, soft, plastic, dry.
		USBRSSB08-12	14.4				
					CL		At 11.5', 5YR 4/3 Reddish brown fine sandy clay, stiff, plastic, moist.
		USBRSSB08-14	0				
15							Sand lens at 15.5', wet.
							Boring Terminated at 16.0'.

LOG OF BORING SB09/TW03

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1615 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1710 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0			0		CL		At 0.0', 5YR Dark gray fine sandy clay with trace silt, soft, non-plastic, dry, brittle.
			0		GM		At 2.0', 0.5cm-1.0cm rounded, subangular gravel with trace silt.
5			0		CL		At 4.0', 7.5YR 4/3 Brown fine sandy clay with trace silt, stiff, plastic, dry.
		USBRSSB09-8	35.8				
		USBRSSB09-10	550		CL		At 7.0', 10YR 3/1 Very dark gray fine sandy clay with trace silt, stiff, plastic, moist. Strong odor at 8.0'.
10				▽			
			15.8		CL		At 10.5', 5YR 4/3 Reddish brown fine sandy clay with trace silt, stiff, plastic, moist.
			0				
15			0				Boring Terminated at 15.0', Insatlled TW03.

LOG OF BORING SB10

U.S. Corps of Engineers-Louisville District
Phase II Sampling
Brownsville, Texas

Project Number: 0888807792

Began:	1745 5-12-09	EnSafe Geologist:	Brett Hamby
End:	1723 5-12-09	Boring Depth:	15.0'
Drilling Company:	Alliance	Surface Conditions:	Grass
Drilling Method:	Geoprobe DPT-6620DT	Driller:	Jamie Bell
Sampling Method:	4' Direct Push with Acetate		

Depth (ft.)	Samples	Sample ID	PID (ppm)	Water Level	USCS	Graphic	Description
0							At 0.0', 5YR 3/1 Very dak gray fine sandy clay with trace silt, stiff, plastic, dry.
			0				
			0				
5			0		CL		
		USBRSSB10-8	10.5				
							Strong odor at 8.0'.
		USBRSSB10-10	1540				
10				▽			
			638				At 11.0', 5YR 4/3 Reddish brown fine sandy clay with trace silt, plastic, moist.
			5.6		CL		
15			1.5				
							Boring Terminated at 15.0'.

Attachment C

Table 1 — Summary of Soil Samples Analytical Results

Table 1- Soil Analytical Data Summary
Brownsville Phase II-Brownsville, TX

Sample/Boring Location	SB01	SB01	SB02	SB02	SB03	SB03	SB04	SB04	SB05	SB05	TCEQ Action Levels[1]
Field Sample ID	USBRSSB01-8	USBRSSB01-10	USBRSSB02-6	USBRSSB02-9	USBRSSB03-8	USBRSSB03-10	USBRSSB04-8	USBRSSB04-10	USBRSSB05-8	USBRSSB05-10	
Sample Date	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	
Sample Depth (ft.)	6 to 8	8 to 10	4 to 6	7 to 9	6 to 8	8 to 10	6 to 8	8 to 10	6 to 8	8 to 10	
Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
TPH[2]											
C6 to C12	32.1	123	ND	440	25.9	261	ND	149	ND	139	N.A.
>C12 to C28	33.9	76.8	211.0	1400	29.6	151	ND	86.3	35.2	68.6	N.A.
>C28 to C35	ND	ND	ND	ND	ND	76.4	ND	ND	ND	ND	N.A.
C6-C35	66.0	200	211	1800	55.4	488	ND	236	35.2	208	N.A.
VOC											
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	31
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5
n-Butylbenzene	0.658	1.77	ND	5.22	0.561	0.0375	ND	0.900	ND	1.65	N.A.
sec-Butylbenzene	0.588	1.28	ND	2.68	0.577	0.0173	ND	0.834	ND	0.964	N.A.
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N.A.
Ethylbenzene	0.324	ND	ND	ND	ND	0.0065	ND	ND	ND	0.347	1,193
Isopropylbenzene	0.835	1.69	ND	5.62	0.606	0.0628	ND	1.04	ND	2.16	N.A.
Methyl ethyl ketone	ND	0.882	ND	ND	0.973	ND	ND	ND	ND	ND	202
Methyl Tert Butyl Ether	ND	ND	ND	ND	0.630	0.0800	ND	ND	ND	ND	3.1
Naphthalene*	0.168	0.430	ND	12.5	0.108	0.184	ND	0.853	ND	2.42	389
n-Propylbenzene	1.04	3.02	ND	11.7	0.641	0.113	ND	1.55	ND	3.80	N.A.
Toluene	0.341	0.324	ND	ND	0.378	ND	ND	ND	ND	0.334	716
PAH											
Naphthalene*	NA	NA	NA	0.283	NA	NA	NA	NA	NA	NA	389
Acenaphthene	NA	NA	NA	0.107	NA	NA	NA	NA	NA	NA	314
Fluorene	NA	NA	NA	0.281	NA	NA	NA	NA	NA	NA	247
2-Methylnaphthalene	NA	NA	NA	0.559	NA	NA	NA	NA	NA	NA	N.A.
Phenanthrene	NA	NA	NA	0.67	NA	NA	NA	NA	NA	NA	280
Pyrene	NA	NA	NA	0.127	NA	NA	NA	NA	NA	NA	99

Notes:

1. The TCEQ Action level is derived from: applicable Groundwater Protective Soil Concentrations found in Appendix A of RG-36 (Risk Based Corrective Action for Leaking Storage Tank Sites) for Class III Groundwater (January 1994).

2. No TCEQ Action Level is available. TPH is required to screen for PAH sample analysis selection only.

Shaded values indicate an exceedance of applicable TCEQ Risk Based Corrective Action Levels.

NA - Not Analyzed

N.A. - Not Available

ND - Not Detected

* Naphthalene analyzed by method 8260 for the VOC analytical suite and by method 8270 for the SVOC analytical suite.

Table 1 (cont.)- Soil Analytical Data Summary
Brownsville Phase II-Brownsville, TX

Sample/Boring Location	SB06	SB06	SB07	SB07	SB08	SB08	SB09	SB09	SB10	SB10	TCEQ Action Levels[1]
Field Sample ID	USBRSSB06-8	USBRSSB06-14	USBRSSB07-8	USBRSSB07-10	USBRSSB08-12	USBRSSB08-14	USBRSSB09-8	USBRSSB09-10	USBRSSB10-8	USBRSSB10-10	
Sample Date	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	05/12/09	
Sample Depth (ft.)	6 to 8	12 to 14	6 to 8	8 to 10	10 to 12	12 to 14	6 to 8	8 to 10	6 to 8	8 to 10	
Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
TPH[2]											
C6 to C12	ND	ND	ND	ND	227	ND	31.3	595	47.6	243	N.A.
>C12 to C28	ND	ND	ND	ND	80.6	ND	62	388	41.3	240	N.A.
>C28 to C35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N.A.
C6-C35	ND	ND	ND	ND	307	ND	93.3	983	88.9	484	N.A.
VOC											
Acetone	ND	ND	ND	ND	ND	ND	0.0105	ND	ND	ND	31
Benzene	ND	ND	ND	ND	ND	ND	0.0024	0.276	ND	ND	3.5
n-Butylbenzene	ND	ND	ND	ND	ND	ND	0.0331	7.04	ND	3.67	N.A.
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	0.0383	2.91	ND	1.79	N.A.
Carbon disulfide	ND	ND	ND	ND	0.0037	ND	0.0071	ND	ND	ND	N.A.
Ethylbenzene	ND	ND	ND	ND	ND	ND	0.0055	0.571	ND	ND	1,193
Isopropylbenzene	ND	ND	ND	ND	ND	ND	0.0358	8.68	ND	4.93	N.A.
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	0.0155	ND	ND	ND	202
Methyl Tert Butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1
Naphthalene*	ND	ND	ND	ND	ND	ND	0.0103	8.76	ND	0.825	389
n-Propylbenzene	ND	ND	ND	ND	ND	ND	0.669	16.2	ND	9.5	N.A.
Toluene	ND	ND	ND	ND	ND	ND	ND	0.382	ND	ND	716
PAH											
Naphthalene*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	389
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	314
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	247
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N.A.
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	280
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	99

Notes:

1. The TCEQ Action level is derived from: applicable Groundwater Protective Soil Concentrations found in Appendix A of RG-36 (Risk Based Corrective Action for Leaking Storage Tank Sites) for Class III Groundwater (January 1994).

2. No TCEQ Action Level is available. TPH is required to screen for PAH sample analysis selection only.

Shaded values indicate an exceedance of applicable TCEQ Risk Based Corrective Action Levels.

NA - Not Analyzed

N.A. - Not Available

ND - Not Detected

* Naphthalene analyzed by method 8260 for the VOC analytical suite and by method 8270 for the SVOC analytical suite.

Attachment D

Analytical Data

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/26/09

Technical Report for

ENSAFE

COE Brownsville, Texas/0888807792

Accutest Job Number: T28959

Sampling Dates: 05/12/09 - 05/13/09

Report to:

ENSAFE

bjackson@ensafe.com
khill@ensafe.com; jrathbone@ensafe.com
ATTN: Jim Rathbone

Total number of pages in report: **152**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

ENSAFE

COE Brownsville, Texas/0888807792

Job No: T28959

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T28959-1	05/12/09	10:40 BJ	05/14/09	SO	Soil	USBRSSB01-8
T28959-2	05/12/09	10:40 BJ	05/14/09	SO	Soil	USBRSSB01-10
T28959-3	05/12/09	11:30 BJ	05/14/09	SO	Soil	USBRSSB03-8
T28959-4	05/12/09	11:30 BJ	05/14/09	SO	Soil	USBRSSB03-10
T28959-5	05/12/09	09:45 BJ	05/14/09	SO	Soil	USBRSSB02-6
T28959-6	05/12/09	09:45 BJ	05/14/09	SO	Soil	USBRSSB02-9
T28959-7	05/12/09	12:35 BJ	05/14/09	SO	Soil	USBRSSB05-8
T28959-8	05/12/09	12:35 BJ	05/14/09	SO	Soil	USBRSSB05-10
T28959-9	05/12/09	13:45 BJ	05/14/09	SO	Soil	USBRSSB08-12
T28959-10	05/12/09	13:45 BJ	05/14/09	SO	Soil	USBRSSB08-14
T28959-11	05/12/09	14:25 BJ	05/14/09	SO	Soil	USBRSSB07-8
T28959-12	05/12/09	14:25 BJ	05/14/09	SO	Soil	USBRSSB07-10
T28959-13	05/12/09	15:25 BJ	05/14/09	SO	Soil	USBRSSB04-8

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Accutest Laboratories

Sample Summary
(continued)

ENSAFE

Job No: T28959

COE Brownsville, Texas/0888807792

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T28959-14	05/12/09	15:25 BJ	05/14/09	SO	Soil	USBRSSB04-10
T28959-15	05/12/09	16:10 BJ	05/14/09	SO	Soil	USBRSSB06-8
T28959-16	05/12/09	16:10 BJ	05/14/09	SO	Soil	USBRSSB06-14
T28959-17	05/12/09	17:15 BJ	05/14/09	SO	Soil	USBRSSB09-8
T28959-18	05/12/09	17:15 BJ	05/14/09	SO	Soil	USBRSSB09-10
T28959-19	05/12/09	17:50 BJ	05/14/09	SO	Soil	USBRSSB10-8
T28959-20	05/12/09	17:50 BJ	05/14/09	SO	Soil	USBRSSB10-10
T28959-21	05/13/09	07:20 BJ	05/14/09	AQ	Ground Water	USBRGTW01-1
T28959-22	05/13/09	07:57 BJ	05/14/09	AQ	Ground Water	USBRGTW02-1
T28959-23	05/13/09	08:00 BJ	05/14/09	AQ	Ground Water	USBRGTW03-1
T28959-24	05/12/09	07:00 BJ	05/14/09	SO	Trip Blank Soil	TRIP BLANK

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-8		
Lab Sample ID:	T28959-1	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004184.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	3.8	0.54	mg/kg	
71-43-2	Benzene	ND	0.38	0.10	mg/kg	
108-86-1	Bromobenzene	ND	0.38	0.095	mg/kg	
74-97-5	Bromochloromethane	ND	0.38	0.11	mg/kg	
75-27-4	Bromodichloromethane	ND	0.38	0.11	mg/kg	
75-25-2	Bromoform	ND	0.38	0.092	mg/kg	
104-51-8	n-Butylbenzene	0.658	0.38	0.073	mg/kg	
135-98-8	sec-Butylbenzene	0.588	0.38	0.085	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.38	0.076	mg/kg	
108-90-7	Chlorobenzene	ND	0.38	0.11	mg/kg	
75-00-3	Chloroethane	ND	0.38	0.11	mg/kg	
67-66-3	Chloroform	ND	0.38	0.094	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.38	0.089	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.38	0.085	mg/kg	
75-15-0	Carbon disulfide	ND	0.75	0.095	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.38	0.083	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.38	0.098	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.38	0.095	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.38	0.089	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.38	0.11	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.38	0.11	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.38	0.10	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.38	0.11	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.38	0.11	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.38	0.083	mg/kg	
124-48-1	Dibromochloromethane	ND	0.38	0.10	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.38	0.080	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.38	0.10	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.38	0.095	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.38	0.092	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.38	0.086	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.38	0.091	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-8		
Lab Sample ID:	T28959-1	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.38	0.098	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.38	0.10	mg/kg	
100-41-4	Ethylbenzene	0.324	0.38	0.095	mg/kg	J
591-78-6	2-Hexanone	ND	3.8	0.51	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.38	0.088	mg/kg	
98-82-8	Isopropylbenzene	0.835	0.38	0.089	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.38	0.090	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	3.8	0.52	mg/kg	
74-83-9	Methyl bromide	ND	0.38	0.11	mg/kg	
74-87-3	Methyl chloride	ND	0.38	0.11	mg/kg	
74-95-3	Methylene bromide	ND	0.38	0.15	mg/kg	
75-09-2	Methylene chloride	ND	0.75	0.18	mg/kg	
78-93-3	Methyl ethyl ketone	ND	3.8	0.51	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.38	0.11	mg/kg	
91-20-3	Naphthalene	0.168	0.38	0.092	mg/kg	J
103-65-1	n-Propylbenzene	1.04	0.38	0.083	mg/kg	
100-42-5	Styrene	ND	0.38	0.095	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.38	0.11	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.38	0.090	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.38	0.11	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.38	0.10	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.38	0.090	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.38	0.11	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.38	0.076	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.38	0.083	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.38	0.082	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.38	0.099	mg/kg	
108-88-3	Toluene	0.341	0.38	0.095	mg/kg	J
79-01-6	Trichloroethylene	ND	0.38	0.096	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.38	0.075	mg/kg	
75-01-4	Vinyl chloride	ND	0.38	0.10	mg/kg	
1330-20-7	Xylene (total)	ND	1.1	0.28	mg/kg	
	m,p-Xylene	ND	0.75	0.19	mg/kg	
95-47-6	o-Xylene	ND	0.38	0.095	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-121%
2037-26-5	Toluene-D8	97%		76-132%
460-00-4	4-Bromofluorobenzene	107%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-8		
Lab Sample ID:	T28959-1	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	76%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-8		
Lab Sample ID:	T28959-1	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023131.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	32.1	31	8.7	mg/kg	
	TPH (> C12-C28)	33.9	31	8.3	mg/kg	
	TPH (> C28-C35)	ND	31	8.3	mg/kg	
	TPH (C6-C35)	66.0	31	8.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		70-130%
98-08-8	aaa-Trifluorotoluene	91%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-10		
Lab Sample ID:	T28959-2	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.2
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004185.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.35 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	3.5	0.51	mg/kg	
71-43-2	Benzene	ND	0.35	0.098	mg/kg	
108-86-1	Bromobenzene	ND	0.35	0.090	mg/kg	
74-97-5	Bromochloromethane	ND	0.35	0.10	mg/kg	
75-27-4	Bromodichloromethane	ND	0.35	0.10	mg/kg	
75-25-2	Bromoform	ND	0.35	0.086	mg/kg	
104-51-8	n-Butylbenzene	1.77	0.35	0.068	mg/kg	
135-98-8	sec-Butylbenzene	1.28	0.35	0.080	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.35	0.071	mg/kg	
108-90-7	Chlorobenzene	ND	0.35	0.099	mg/kg	
75-00-3	Chloroethane	ND	0.35	0.10	mg/kg	
67-66-3	Chloroform	ND	0.35	0.088	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.35	0.084	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.35	0.080	mg/kg	
75-15-0	Carbon disulfide	ND	0.71	0.090	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.35	0.078	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.35	0.092	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.35	0.089	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.35	0.084	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.35	0.10	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.35	0.099	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.35	0.097	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.35	0.10	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.35	0.10	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.35	0.078	mg/kg	
124-48-1	Dibromochloromethane	ND	0.35	0.097	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.35	0.076	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.35	0.097	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.35	0.089	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.35	0.086	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.35	0.081	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.35	0.085	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-10		
Lab Sample ID:	T28959-2	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.2
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.35	0.092	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.35	0.095	mg/kg	
100-41-4	Ethylbenzene	ND	0.35	0.089	mg/kg	
591-78-6	2-Hexanone	ND	3.5	0.48	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.35	0.083	mg/kg	
98-82-8	Isopropylbenzene	1.69	0.35	0.084	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.35	0.085	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	3.5	0.49	mg/kg	
74-83-9	Methyl bromide	ND	0.35	0.11	mg/kg	
74-87-3	Methyl chloride	ND	0.35	0.10	mg/kg	
74-95-3	Methylene bromide	ND	0.35	0.14	mg/kg	
75-09-2	Methylene chloride	ND	0.71	0.17	mg/kg	
78-93-3	Methyl ethyl ketone	0.882	3.5	0.48	mg/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	0.35	0.10	mg/kg	
91-20-3	Naphthalene	0.430	0.35	0.087	mg/kg	
103-65-1	n-Propylbenzene	3.02	0.35	0.078	mg/kg	
100-42-5	Styrene	ND	0.35	0.090	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.35	0.099	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.35	0.085	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.35	0.10	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.35	0.097	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.35	0.085	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.35	0.099	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.35	0.071	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.35	0.078	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.35	0.077	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.35	0.093	mg/kg	
108-88-3	Toluene	0.324	0.35	0.089	mg/kg	J
79-01-6	Trichloroethylene	ND	0.35	0.090	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.35	0.071	mg/kg	
75-01-4	Vinyl chloride	ND	0.35	0.096	mg/kg	
1330-20-7	Xylene (total)	ND	1.1	0.27	mg/kg	
	m,p-Xylene	ND	0.71	0.18	mg/kg	
95-47-6	o-Xylene	ND	0.35	0.089	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-121%
2037-26-5	Toluene-D8	97%		76-132%
460-00-4	4-Bromofluorobenzene	106%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-10		
Lab Sample ID:	T28959-2	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.2
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	73%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB01-10		
Lab Sample ID:	T28959-2	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	80.2
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023132.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	123	31	8.6	mg/kg	
	TPH (> C12-C28)	76.8	31	8.2	mg/kg	
	TPH (> C28-C35)	ND	31	8.2	mg/kg	
	TPH (C6-C35)	200	31	8.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		70-130%
98-08-8	aaa-Trifluorotoluene	92%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-8		
Lab Sample ID:	T28959-3	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	75.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004186.D	1	05/15/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	4.1	0.59	mg/kg	
71-43-2	Benzene	ND	0.41	0.11	mg/kg	
108-86-1	Bromobenzene	ND	0.41	0.10	mg/kg	
74-97-5	Bromochloromethane	ND	0.41	0.12	mg/kg	
75-27-4	Bromodichloromethane	ND	0.41	0.12	mg/kg	
75-25-2	Bromoform	ND	0.41	0.10	mg/kg	
104-51-8	n-Butylbenzene	0.561	0.41	0.080	mg/kg	
135-98-8	sec-Butylbenzene	0.577	0.41	0.093	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.41	0.083	mg/kg	
108-90-7	Chlorobenzene	ND	0.41	0.12	mg/kg	
75-00-3	Chloroethane	ND	0.41	0.12	mg/kg	
67-66-3	Chloroform	ND	0.41	0.10	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.41	0.098	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.41	0.093	mg/kg	
75-15-0	Carbon disulfide	ND	0.83	0.10	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.41	0.091	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.41	0.11	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.41	0.10	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.41	0.098	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.41	0.12	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.41	0.12	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.41	0.11	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.41	0.12	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.41	0.12	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.41	0.091	mg/kg	
124-48-1	Dibromochloromethane	ND	0.41	0.11	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.41	0.088	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.41	0.11	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.41	0.10	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.41	0.10	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.41	0.095	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.41	0.10	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-8		
Lab Sample ID:	T28959-3	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	75.0
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.41	0.11	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.41	0.11	mg/kg	
100-41-4	Ethylbenzene	ND	0.41	0.10	mg/kg	
591-78-6	2-Hexanone	ND	4.1	0.56	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.41	0.097	mg/kg	
98-82-8	Isopropylbenzene	0.606	0.41	0.098	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.41	0.099	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	4.1	0.58	mg/kg	
74-83-9	Methyl bromide	ND	0.41	0.12	mg/kg	
74-87-3	Methyl chloride	ND	0.41	0.12	mg/kg	
74-95-3	Methylene bromide	ND	0.41	0.17	mg/kg	
75-09-2	Methylene chloride	ND	0.83	0.20	mg/kg	
78-93-3	Methyl ethyl ketone	0.973	4.1	0.56	mg/kg	J
1634-04-4	Methyl Tert Butyl Ether	0.630	0.41	0.12	mg/kg	
91-20-3	Naphthalene	0.108	0.41	0.10	mg/kg	J
103-65-1	n-Propylbenzene	0.641	0.41	0.092	mg/kg	
100-42-5	Styrene	ND	0.41	0.10	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.41	0.12	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.41	0.099	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.41	0.12	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.41	0.11	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.41	0.099	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.41	0.12	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.41	0.083	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.41	0.092	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.41	0.090	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.41	0.11	mg/kg	
108-88-3	Toluene	0.378	0.41	0.10	mg/kg	J
79-01-6	Trichloroethylene	ND	0.41	0.11	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.41	0.083	mg/kg	
75-01-4	Vinyl chloride	ND	0.41	0.11	mg/kg	
1330-20-7	Xylene (total)	ND	1.2	0.31	mg/kg	
	m,p-Xylene	ND	0.83	0.21	mg/kg	
95-47-6	o-Xylene	ND	0.41	0.10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-121%
2037-26-5	Toluene-D8	96%		76-132%
460-00-4	4-Bromofluorobenzene	101%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-8		
Lab Sample ID:	T28959-3	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	75.0
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	75%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-8		
Lab Sample ID:	T28959-3	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	75.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023133.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	25.9	32	9.0	mg/kg	J
	TPH (> C12-C28)	29.6	32	8.6	mg/kg	J
	TPH (> C28-C35)	ND	32	8.6	mg/kg	
	TPH (C6-C35)	55.4	32	8.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		70-130%
98-08-8	aaa-Trifluorotoluene	91%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-10		
Lab Sample ID:	T28959-4	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004224.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.061	0.0088	mg/kg	
71-43-2	Benzene	ND	0.0061	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0061	0.0015	mg/kg	
74-97-5	Bromochloromethane	ND	0.0061	0.0018	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0061	0.0017	mg/kg	
75-25-2	Bromoform	ND	0.0061	0.0015	mg/kg	
104-51-8	n-Butylbenzene	0.0375	0.0061	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	0.0173	0.0061	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0061	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0061	0.0017	mg/kg	
75-00-3	Chloroethane	ND	0.0061	0.0017	mg/kg	
67-66-3	Chloroform	ND	0.0061	0.0015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0061	0.0014	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0061	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.012	0.0015	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0061	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0061	0.0016	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0061	0.0015	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0061	0.0014	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0061	0.0017	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0061	0.0017	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0061	0.0017	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0061	0.0018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0061	0.0018	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0061	0.0013	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0061	0.0017	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0061	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0061	0.0017	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0061	0.0015	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0061	0.0015	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0061	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0061	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-10		
Lab Sample ID:	T28959-4	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0061	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0061	0.0016	mg/kg	
100-41-4	Ethylbenzene	0.0065	0.0061	0.0015	mg/kg	
591-78-6	2-Hexanone	ND	0.061	0.0083	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0061	0.0014	mg/kg	
98-82-8	Isopropylbenzene	0.0628	0.0061	0.0014	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0061	0.0015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.061	0.0085	mg/kg	
74-83-9	Methyl bromide	ND	0.0061	0.0018	mg/kg	
74-87-3	Methyl chloride	ND	0.0061	0.0018	mg/kg	
74-95-3	Methylene bromide	ND	0.0061	0.0024	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0030	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.061	0.0082	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	0.0800	0.0061	0.0018	mg/kg	
91-20-3	Naphthalene	0.184	0.0061	0.0015	mg/kg	
103-65-1	n-Propylbenzene	0.113	0.0061	0.0014	mg/kg	
100-42-5	Styrene	ND	0.0061	0.0015	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0061	0.0017	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0061	0.0015	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0061	0.0018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0061	0.0017	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0061	0.0015	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0061	0.0017	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0061	0.0012	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0061	0.0014	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0061	0.0013	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0061	0.0016	mg/kg	
108-88-3	Toluene	ND	0.0061	0.0015	mg/kg	
79-01-6	Trichloroethylene	ND	0.0061	0.0016	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0061	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0061	0.0017	mg/kg	
1330-20-7	Xylene (total)	ND	0.018	0.0046	mg/kg	
	m,p-Xylene	ND	0.012	0.0031	mg/kg	
95-47-6	o-Xylene	ND	0.0061	0.0015	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-121%
2037-26-5	Toluene-D8	97%		76-132%
460-00-4	4-Bromofluorobenzene	107%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-10		
Lab Sample ID:	T28959-4	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	79%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB03-10		
Lab Sample ID:	T28959-4	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	82.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023134.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	261	30	8.3	mg/kg	
	TPH (> C12-C28)	151	30	7.9	mg/kg	
	TPH (> C28-C35)	76.4	30	7.9	mg/kg	
	TPH (C6-C35)	488	30	7.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		70-130%
98-08-8	aaa-Trifluorotoluene	96%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-6		
Lab Sample ID:	T28959-5	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	75.6
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004216.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume
Run #1	5.18 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.064	0.0092	mg/kg	
71-43-2	Benzene	ND	0.0064	0.0018	mg/kg	
108-86-1	Bromobenzene	ND	0.0064	0.0016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0064	0.0018	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0064	0.0018	mg/kg	
75-25-2	Bromoform	ND	0.0064	0.0016	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0064	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0064	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0064	0.0013	mg/kg	
108-90-7	Chlorobenzene	ND	0.0064	0.0018	mg/kg	
75-00-3	Chloroethane	ND	0.0064	0.0018	mg/kg	
67-66-3	Chloroform	ND	0.0064	0.0016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0064	0.0015	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0064	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.013	0.0016	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0064	0.0014	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0064	0.0017	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0064	0.0016	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0064	0.0015	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0064	0.0018	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0064	0.0018	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0064	0.0017	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0064	0.0019	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0064	0.0018	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0064	0.0014	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0064	0.0018	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0064	0.0014	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0064	0.0017	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0064	0.0016	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0064	0.0016	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0064	0.0015	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0064	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-6		
Lab Sample ID:	T28959-5	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	75.6
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0064	0.0017	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0064	0.0017	mg/kg	
100-41-4	Ethylbenzene	ND	0.0064	0.0016	mg/kg	
591-78-6	2-Hexanone	ND	0.064	0.0087	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0064	0.0015	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0064	0.0015	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0064	0.0015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.064	0.0089	mg/kg	
74-83-9	Methyl bromide	ND	0.0064	0.0019	mg/kg	
74-87-3	Methyl chloride	ND	0.0064	0.0019	mg/kg	
74-95-3	Methylene bromide	ND	0.0064	0.0026	mg/kg	
75-09-2	Methylene chloride	ND	0.013	0.0031	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.064	0.0086	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0064	0.0019	mg/kg	
91-20-3	Naphthalene	ND	0.0064	0.0016	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0064	0.0014	mg/kg	
100-42-5	Styrene	ND	0.0064	0.0016	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0064	0.0018	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0064	0.0015	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0064	0.0018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0064	0.0018	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0064	0.0015	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0064	0.0018	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0064	0.0013	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0064	0.0014	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0064	0.0014	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0064	0.0017	mg/kg	
108-88-3	Toluene	ND	0.0064	0.0016	mg/kg	
79-01-6	Trichloroethylene	ND	0.0064	0.0016	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0064	0.0013	mg/kg	
75-01-4	Vinyl chloride	ND	0.0064	0.0017	mg/kg	
1330-20-7	Xylene (total)	ND	0.019	0.0048	mg/kg	
	m,p-Xylene	ND	0.013	0.0032	mg/kg	
95-47-6	o-Xylene	ND	0.0064	0.0016	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-121%
2037-26-5	Toluene-D8	106%		76-132%
460-00-4	4-Bromofluorobenzene	107%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-6		
Lab Sample ID:	T28959-5	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	75.6
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	109%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-6		
Lab Sample ID:	T28959-5	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	75.6
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023135.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	32	9.0	mg/kg	
	TPH (> C12-C28)	211	32	8.6	mg/kg	
	TPH (> C28-C35)	ND	32	8.6	mg/kg	
	TPH (C6-C35)	211	32	8.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		70-130%
98-08-8	aaa-Trifluorotoluene	93%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-9		
Lab Sample ID:	T28959-6	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004219.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.60 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	3.4	0.49	mg/kg	
71-43-2	Benzene	ND	0.34	0.095	mg/kg	
108-86-1	Bromobenzene	ND	0.34	0.087	mg/kg	
74-97-5	Bromochloromethane	ND	0.34	0.098	mg/kg	
75-27-4	Bromodichloromethane	ND	0.34	0.096	mg/kg	
75-25-2	Bromoform	ND	0.34	0.083	mg/kg	
104-51-8	n-Butylbenzene	5.22	0.34	0.066	mg/kg	
135-98-8	sec-Butylbenzene	2.68	0.34	0.077	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.34	0.069	mg/kg	
108-90-7	Chlorobenzene	ND	0.34	0.096	mg/kg	
75-00-3	Chloroethane	ND	0.34	0.097	mg/kg	
67-66-3	Chloroform	ND	0.34	0.085	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.34	0.081	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.34	0.077	mg/kg	
75-15-0	Carbon disulfide	ND	0.68	0.087	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.34	0.075	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.34	0.089	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.34	0.086	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.34	0.081	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.34	0.096	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.34	0.096	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.34	0.094	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.34	0.10	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.34	0.098	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.34	0.075	mg/kg	
124-48-1	Dibromochloromethane	ND	0.34	0.094	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.34	0.073	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.34	0.094	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.34	0.086	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.34	0.083	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.34	0.079	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.34	0.083	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-9		
Lab Sample ID:	T28959-6	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.0
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.34	0.089	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.34	0.092	mg/kg	
100-41-4	Ethylbenzene	ND	0.34	0.086	mg/kg	
591-78-6	2-Hexanone	ND	3.4	0.47	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.34	0.080	mg/kg	
98-82-8	Isopropylbenzene	5.62	0.34	0.081	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.34	0.082	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	3.4	0.48	mg/kg	
74-83-9	Methyl bromide	ND	0.34	0.10	mg/kg	
74-87-3	Methyl chloride	ND	0.34	0.099	mg/kg	
74-95-3	Methylene bromide	ND	0.34	0.14	mg/kg	
75-09-2	Methylene chloride	ND	0.68	0.17	mg/kg	
78-93-3	Methyl ethyl ketone	ND	3.4	0.46	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.34	0.10	mg/kg	
91-20-3	Naphthalene	12.5	0.34	0.084	mg/kg	
103-65-1	n-Propylbenzene	11.7	0.34	0.076	mg/kg	
100-42-5	Styrene	ND	0.34	0.087	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.34	0.096	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.34	0.082	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.34	0.098	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.34	0.094	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.34	0.082	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.34	0.096	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.34	0.069	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.34	0.076	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.34	0.074	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.34	0.090	mg/kg	
108-88-3	Toluene	ND	0.34	0.086	mg/kg	
79-01-6	Trichloroethylene	ND	0.34	0.087	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.34	0.068	mg/kg	
75-01-4	Vinyl chloride	ND	0.34	0.093	mg/kg	
1330-20-7	Xylene (total)	ND	1.0	0.26	mg/kg	
	m,p-Xylene	ND	0.68	0.17	mg/kg	
95-47-6	o-Xylene	ND	0.34	0.086	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-121%
2037-26-5	Toluene-D8	93%		76-132%
460-00-4	4-Bromofluorobenzene	112%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-9		
Lab Sample ID:	T28959-6	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.0
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	73%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-9		
Lab Sample ID:	T28959-6	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	80.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023136.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	440	30	8.4	mg/kg	
	TPH (> C12-C28)	1400	30	8.0	mg/kg	
	TPH (> C28-C35)	ND	30	8.0	mg/kg	
	TPH (C6-C35)	1840	30	8.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	117%		70-130%
98-08-8	aaa-Trifluorotoluene	86%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-8		
Lab Sample ID:	T28959-7	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004175.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.08 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.063	0.0090	mg/kg	
71-43-2	Benzene	ND	0.0063	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0063	0.0016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0063	0.0018	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0063	0.0018	mg/kg	
75-25-2	Bromoform	ND	0.0063	0.0015	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0063	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0063	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0063	0.0013	mg/kg	
108-90-7	Chlorobenzene	ND	0.0063	0.0018	mg/kg	
75-00-3	Chloroethane	ND	0.0063	0.0018	mg/kg	
67-66-3	Chloroform	ND	0.0063	0.0016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0063	0.0015	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0063	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.013	0.0016	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0063	0.0014	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0063	0.0016	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0063	0.0016	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0063	0.0015	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0063	0.0018	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0063	0.0018	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0063	0.0017	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0063	0.0018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0063	0.0018	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0063	0.0014	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0063	0.0017	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0063	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0063	0.0017	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0063	0.0016	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0063	0.0015	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0063	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0063	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-8		
Lab Sample ID:	T28959-7	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0063	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0063	0.0017	mg/kg	
100-41-4	Ethylbenzene	ND	0.0063	0.0016	mg/kg	
591-78-6	2-Hexanone	ND	0.063	0.0086	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0063	0.0015	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0063	0.0015	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0063	0.0015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.063	0.0088	mg/kg	
74-83-9	Methyl bromide	ND	0.0063	0.0019	mg/kg	
74-87-3	Methyl chloride	ND	0.0063	0.0018	mg/kg	
74-95-3	Methylene bromide	ND	0.0063	0.0025	mg/kg	
75-09-2	Methylene chloride	ND	0.013	0.0031	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.063	0.0085	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0063	0.0019	mg/kg	
91-20-3	Naphthalene	ND	0.0063	0.0015	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0063	0.0014	mg/kg	
100-42-5	Styrene	ND	0.0063	0.0016	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0063	0.0018	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0063	0.0015	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0063	0.0018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0063	0.0017	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0063	0.0015	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0063	0.0018	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0063	0.0013	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0063	0.0014	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0063	0.0014	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0063	0.0017	mg/kg	
108-88-3	Toluene	ND	0.0063	0.0016	mg/kg	
79-01-6	Trichloroethylene	ND	0.0063	0.0016	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0063	0.0013	mg/kg	
75-01-4	Vinyl chloride	ND	0.0063	0.0017	mg/kg	
1330-20-7	Xylene (total)	ND	0.019	0.0048	mg/kg	
	m,p-Xylene	ND	0.013	0.0032	mg/kg	
95-47-6	o-Xylene	ND	0.0063	0.0016	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	96%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-8		
Lab Sample ID:	T28959-7	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	93%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-8		
Lab Sample ID:	T28959-7	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	78.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023137.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	31	8.8	mg/kg	
	TPH (> C12-C28)	35.2	31	8.4	mg/kg	
	TPH (> C28-C35)	ND	31	8.4	mg/kg	
	TPH (C6-C35)	35.2	31	8.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		70-130%
98-08-8	aaa-Trifluorotoluene	92%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-10		
Lab Sample ID:	T28959-8	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004188.D	1	05/15/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.27 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	3.6	0.52	mg/kg	
71-43-2	Benzene	ND	0.36	0.10	mg/kg	
108-86-1	Bromobenzene	ND	0.36	0.091	mg/kg	
74-97-5	Bromochloromethane	ND	0.36	0.10	mg/kg	
75-27-4	Bromodichloromethane	ND	0.36	0.10	mg/kg	
75-25-2	Bromoform	ND	0.36	0.088	mg/kg	
104-51-8	n-Butylbenzene	1.65	0.36	0.070	mg/kg	
135-98-8	sec-Butylbenzene	0.964	0.36	0.081	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.36	0.073	mg/kg	
108-90-7	Chlorobenzene	ND	0.36	0.10	mg/kg	
75-00-3	Chloroethane	ND	0.36	0.10	mg/kg	
67-66-3	Chloroform	ND	0.36	0.090	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.36	0.086	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.36	0.081	mg/kg	
75-15-0	Carbon disulfide	ND	0.72	0.091	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.36	0.079	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.36	0.094	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.36	0.091	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.36	0.086	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.36	0.10	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.36	0.10	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.36	0.099	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.36	0.11	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.36	0.10	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.36	0.079	mg/kg	
124-48-1	Dibromochloromethane	ND	0.36	0.099	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.36	0.077	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.36	0.099	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.36	0.091	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.36	0.088	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.36	0.083	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.36	0.087	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-10		
Lab Sample ID:	T28959-8	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.36	0.094	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.36	0.097	mg/kg	
100-41-4	Ethylbenzene	0.347	0.36	0.091	mg/kg	J
591-78-6	2-Hexanone	ND	3.6	0.49	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.36	0.084	mg/kg	
98-82-8	Isopropylbenzene	2.16	0.36	0.086	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.36	0.086	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	3.6	0.50	mg/kg	
74-83-9	Methyl bromide	ND	0.36	0.11	mg/kg	
74-87-3	Methyl chloride	ND	0.36	0.10	mg/kg	
74-95-3	Methylene bromide	ND	0.36	0.14	mg/kg	
75-09-2	Methylene chloride	ND	0.72	0.18	mg/kg	
78-93-3	Methyl ethyl ketone	ND	3.6	0.48	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.36	0.11	mg/kg	
91-20-3	Naphthalene	2.42	0.36	0.088	mg/kg	
103-65-1	n-Propylbenzene	3.80	0.36	0.080	mg/kg	
100-42-5	Styrene	ND	0.36	0.091	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.36	0.10	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.36	0.086	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.36	0.10	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.36	0.099	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.36	0.086	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.36	0.10	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.36	0.073	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.36	0.080	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.36	0.078	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.36	0.095	mg/kg	
108-88-3	Toluene	0.334	0.36	0.091	mg/kg	J
79-01-6	Trichloroethylene	ND	0.36	0.092	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.36	0.072	mg/kg	
75-01-4	Vinyl chloride	ND	0.36	0.098	mg/kg	
1330-20-7	Xylene (total)	ND	1.1	0.27	mg/kg	
	m,p-Xylene	ND	0.72	0.18	mg/kg	
95-47-6	o-Xylene	ND	0.36	0.091	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	105%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-10		
Lab Sample ID:	T28959-8	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	75%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB05-10		
Lab Sample ID:	T28959-8	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	79.9
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023138.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	139	31	8.6	mg/kg	
	TPH (> C12-C28)	68.6	31	8.2	mg/kg	
	TPH (> C28-C35)	ND	31	8.2	mg/kg	
	TPH (C6-C35)	208	31	8.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		70-130%
98-08-8	aaa-Trifluorotoluene	90%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-12		
Lab Sample ID:	T28959-9	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	82.2
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004183.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.25 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.058	0.0083	mg/kg	
71-43-2	Benzene	ND	0.0058	0.0016	mg/kg	
108-86-1	Bromobenzene	ND	0.0058	0.0015	mg/kg	
74-97-5	Bromochloromethane	ND	0.0058	0.0017	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0058	0.0016	mg/kg	
75-25-2	Bromoform	ND	0.0058	0.0014	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0058	0.0011	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0058	0.0013	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0058	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0058	0.0016	mg/kg	
75-00-3	Chloroethane	ND	0.0058	0.0016	mg/kg	
67-66-3	Chloroform	ND	0.0058	0.0014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0058	0.0014	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0058	0.0013	mg/kg	
75-15-0	Carbon disulfide	0.0037	0.012	0.0015	mg/kg	J
56-23-5	Carbon tetrachloride	ND	0.0058	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0058	0.0015	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0058	0.0015	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0058	0.0014	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0058	0.0016	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0058	0.0016	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0058	0.0016	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0058	0.0017	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0058	0.0017	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0058	0.0013	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0058	0.0016	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0058	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0058	0.0016	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0058	0.0015	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0058	0.0014	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0058	0.0013	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0058	0.0014	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-12		
Lab Sample ID:	T28959-9	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	82.2
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0058	0.0015	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0058	0.0016	mg/kg	
100-41-4	Ethylbenzene	ND	0.0058	0.0015	mg/kg	
591-78-6	2-Hexanone	ND	0.058	0.0079	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0058	0.0014	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0058	0.0014	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0058	0.0014	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.058	0.0081	mg/kg	
74-83-9	Methyl bromide	ND	0.0058	0.0017	mg/kg	
74-87-3	Methyl chloride	ND	0.0058	0.0017	mg/kg	
74-95-3	Methylene bromide	ND	0.0058	0.0023	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0028	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.058	0.0078	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0058	0.0017	mg/kg	
91-20-3	Naphthalene	ND	0.0058	0.0014	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0058	0.0013	mg/kg	
100-42-5	Styrene	ND	0.0058	0.0015	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0058	0.0016	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0058	0.0014	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0058	0.0017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0058	0.0016	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0058	0.0014	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0058	0.0016	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0058	0.0012	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0058	0.0013	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0058	0.0013	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0058	0.0015	mg/kg	
108-88-3	Toluene	ND	0.0058	0.0015	mg/kg	
79-01-6	Trichloroethylene	ND	0.0058	0.0015	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0058	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0058	0.0016	mg/kg	
1330-20-7	Xylene (total)	ND	0.017	0.0044	mg/kg	
	m,p-Xylene	ND	0.012	0.0029	mg/kg	
95-47-6	o-Xylene	ND	0.0058	0.0015	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-121%
2037-26-5	Toluene-D8	93%		76-132%
460-00-4	4-Bromofluorobenzene	105%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-12		
Lab Sample ID:	T28959-9	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	82.2
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	72%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-12		
Lab Sample ID:	T28959-9	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	82.2
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023139.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	227	29	8.2	mg/kg	
	TPH (> C12-C28)	80.6	29	7.8	mg/kg	
	TPH (> C28-C35)	ND	29	7.8	mg/kg	
	TPH (C6-C35)	307	29	7.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		70-130%
98-08-8	aaa-Trifluorotoluene	89%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-14		
Lab Sample ID:	T28959-10	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	81.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004176.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.14 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.060	0.0086	mg/kg	
71-43-2	Benzene	ND	0.0060	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0060	0.0015	mg/kg	
74-97-5	Bromochloromethane	ND	0.0060	0.0017	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0060	0.0017	mg/kg	
75-25-2	Bromoform	ND	0.0060	0.0015	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0060	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0060	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0060	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0060	0.0017	mg/kg	
75-00-3	Chloroethane	ND	0.0060	0.0017	mg/kg	
67-66-3	Chloroform	ND	0.0060	0.0015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0060	0.0014	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0060	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.012	0.0015	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0060	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0060	0.0016	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0060	0.0015	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0060	0.0014	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0060	0.0017	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0060	0.0017	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0060	0.0016	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0060	0.0018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0060	0.0017	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0060	0.0013	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0060	0.0017	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0060	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0060	0.0016	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0060	0.0015	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0060	0.0015	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0060	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0060	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-14		
Lab Sample ID:	T28959-10	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	81.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0060	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0060	0.0016	mg/kg	
100-41-4	Ethylbenzene	ND	0.0060	0.0015	mg/kg	
591-78-6	2-Hexanone	ND	0.060	0.0082	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0060	0.0014	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0060	0.0014	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0060	0.0014	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.060	0.0084	mg/kg	
74-83-9	Methyl bromide	ND	0.0060	0.0018	mg/kg	
74-87-3	Methyl chloride	ND	0.0060	0.0017	mg/kg	
74-95-3	Methylene bromide	ND	0.0060	0.0024	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0029	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.060	0.0081	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0060	0.0018	mg/kg	
91-20-3	Naphthalene	ND	0.0060	0.0015	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0060	0.0013	mg/kg	
100-42-5	Styrene	ND	0.0060	0.0015	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0060	0.0017	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0060	0.0014	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0060	0.0017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0060	0.0017	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0060	0.0014	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0060	0.0017	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0060	0.0012	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0060	0.0013	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0060	0.0013	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0060	0.0016	mg/kg	
108-88-3	Toluene	ND	0.0060	0.0015	mg/kg	
79-01-6	Trichloroethylene	ND	0.0060	0.0015	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0060	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0060	0.0016	mg/kg	
1330-20-7	Xylene (total)	ND	0.018	0.0045	mg/kg	
	m,p-Xylene	ND	0.012	0.0030	mg/kg	
95-47-6	o-Xylene	ND	0.0060	0.0015	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	95%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-14		
Lab Sample ID:	T28959-10	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	81.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	87%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB08-14		
Lab Sample ID:	T28959-10	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	81.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023140.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	30	8.5	mg/kg	
	TPH (> C12-C28)	ND	30	8.1	mg/kg	
	TPH (> C28-C35)	ND	30	8.1	mg/kg	
	TPH (C6-C35)	ND	30	8.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		70-130%
98-08-8	aaa-Trifluorotoluene	91%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-8		
Lab Sample ID:	T28959-11	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004177.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.24 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.059	0.0085	mg/kg	
71-43-2	Benzene	ND	0.0059	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0059	0.0015	mg/kg	
74-97-5	Bromochloromethane	ND	0.0059	0.0017	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0059	0.0017	mg/kg	
75-25-2	Bromoform	ND	0.0059	0.0014	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0059	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0059	0.0013	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0059	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0059	0.0017	mg/kg	
75-00-3	Chloroethane	ND	0.0059	0.0017	mg/kg	
67-66-3	Chloroform	ND	0.0059	0.0015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0059	0.0014	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0059	0.0013	mg/kg	
75-15-0	Carbon disulfide	ND	0.012	0.0015	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0059	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0059	0.0015	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0059	0.0015	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0059	0.0014	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0059	0.0017	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0059	0.0017	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0059	0.0016	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0059	0.0017	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0059	0.0017	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0059	0.0013	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0059	0.0016	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0059	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0059	0.0016	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0059	0.0015	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0059	0.0014	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0059	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0059	0.0014	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-8		
Lab Sample ID:	T28959-11	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0059	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0059	0.0016	mg/kg	
100-41-4	Ethylbenzene	ND	0.0059	0.0015	mg/kg	
591-78-6	2-Hexanone	ND	0.059	0.0081	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0059	0.0014	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0059	0.0014	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0059	0.0014	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.059	0.0083	mg/kg	
74-83-9	Methyl bromide	ND	0.0059	0.0018	mg/kg	
74-87-3	Methyl chloride	ND	0.0059	0.0017	mg/kg	
74-95-3	Methylene bromide	ND	0.0059	0.0024	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0029	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.059	0.0080	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0059	0.0018	mg/kg	
91-20-3	Naphthalene	ND	0.0059	0.0015	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0059	0.0013	mg/kg	
100-42-5	Styrene	ND	0.0059	0.0015	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0059	0.0017	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0059	0.0014	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0059	0.0017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0059	0.0016	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0059	0.0014	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0059	0.0017	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0059	0.0012	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0059	0.0013	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0059	0.0013	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0059	0.0016	mg/kg	
108-88-3	Toluene	ND	0.0059	0.0015	mg/kg	
79-01-6	Trichloroethylene	ND	0.0059	0.0015	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0059	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0059	0.0016	mg/kg	
1330-20-7	Xylene (total)	ND	0.018	0.0045	mg/kg	
	m,p-Xylene	ND	0.012	0.0030	mg/kg	
95-47-6	o-Xylene	ND	0.0059	0.0015	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-121%
2037-26-5	Toluene-D8	93%		76-132%
460-00-4	4-Bromofluorobenzene	92%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-8		
Lab Sample ID:	T28959-11	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	80.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	90%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-8		
Lab Sample ID:	T28959-11	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	80.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023141.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	30	8.5	mg/kg	
	TPH (> C12-C28)	ND	30	8.2	mg/kg	
	TPH (> C28-C35)	ND	30	8.2	mg/kg	
	TPH (C6-C35)	ND	30	8.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		70-130%
98-08-8	aaa-Trifluorotoluene	104%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-10		
Lab Sample ID:	T28959-12	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004178.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.09 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.062	0.0089	mg/kg	
71-43-2	Benzene	ND	0.0062	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0062	0.0016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0062	0.0018	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0062	0.0017	mg/kg	
75-25-2	Bromoform	ND	0.0062	0.0015	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0062	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0062	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0062	0.0013	mg/kg	
108-90-7	Chlorobenzene	ND	0.0062	0.0017	mg/kg	
75-00-3	Chloroethane	ND	0.0062	0.0018	mg/kg	
67-66-3	Chloroform	ND	0.0062	0.0015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0062	0.0015	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0062	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.012	0.0016	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0062	0.0014	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0062	0.0016	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0062	0.0016	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0062	0.0015	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0062	0.0017	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0062	0.0017	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0062	0.0017	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0062	0.0018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0062	0.0018	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0062	0.0014	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0062	0.0017	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0062	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0062	0.0017	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0062	0.0016	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0062	0.0015	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0062	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0062	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-10		
Lab Sample ID:	T28959-12	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0062	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0062	0.0017	mg/kg	
100-41-4	Ethylbenzene	ND	0.0062	0.0016	mg/kg	
591-78-6	2-Hexanone	ND	0.062	0.0085	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0062	0.0014	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0062	0.0015	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0062	0.0015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.062	0.0087	mg/kg	
74-83-9	Methyl bromide	ND	0.0062	0.0019	mg/kg	
74-87-3	Methyl chloride	ND	0.0062	0.0018	mg/kg	
74-95-3	Methylene bromide	ND	0.0062	0.0025	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0030	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.062	0.0083	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0062	0.0018	mg/kg	
91-20-3	Naphthalene	ND	0.0062	0.0015	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0062	0.0014	mg/kg	
100-42-5	Styrene	ND	0.0062	0.0016	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0062	0.0017	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0062	0.0015	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0062	0.0018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0062	0.0017	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0062	0.0015	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0062	0.0017	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0062	0.0013	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0062	0.0014	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0062	0.0014	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0062	0.0016	mg/kg	
108-88-3	Toluene	ND	0.0062	0.0016	mg/kg	
79-01-6	Trichloroethylene	ND	0.0062	0.0016	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0062	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0062	0.0017	mg/kg	
1330-20-7	Xylene (total)	ND	0.019	0.0047	mg/kg	
	m,p-Xylene	ND	0.012	0.0031	mg/kg	
95-47-6	o-Xylene	ND	0.0062	0.0016	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-121%
2037-26-5	Toluene-D8	96%		76-132%
460-00-4	4-Bromofluorobenzene	95%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-10		
Lab Sample ID:	T28959-12	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	89%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB07-10		
Lab Sample ID:	T28959-12	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	79.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023142.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	31	8.8	mg/kg	
	TPH (> C12-C28)	ND	31	8.4	mg/kg	
	TPH (> C28-C35)	ND	31	8.4	mg/kg	
	TPH (C6-C35)	ND	31	8.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		70-130%
98-08-8	aaa-Trifluorotoluene	93%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-8		
Lab Sample ID:	T28959-13	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004179.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.062	0.0089	mg/kg	
71-43-2	Benzene	ND	0.0062	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0062	0.0016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0062	0.0018	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0062	0.0018	mg/kg	
75-25-2	Bromoform	ND	0.0062	0.0015	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0062	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0062	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0062	0.0013	mg/kg	
108-90-7	Chlorobenzene	ND	0.0062	0.0017	mg/kg	
75-00-3	Chloroethane	ND	0.0062	0.0018	mg/kg	
67-66-3	Chloroform	ND	0.0062	0.0016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0062	0.0015	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0062	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.012	0.0016	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0062	0.0014	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0062	0.0016	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0062	0.0016	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0062	0.0015	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0062	0.0018	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0062	0.0017	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0062	0.0017	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0062	0.0018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0062	0.0018	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0062	0.0014	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0062	0.0017	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0062	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0062	0.0017	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0062	0.0016	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0062	0.0015	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0062	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0062	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-8		
Lab Sample ID:	T28959-13	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.0
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0062	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0062	0.0017	mg/kg	
100-41-4	Ethylbenzene	ND	0.0062	0.0016	mg/kg	
591-78-6	2-Hexanone	ND	0.062	0.0085	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0062	0.0015	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0062	0.0015	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0062	0.0015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.062	0.0087	mg/kg	
74-83-9	Methyl bromide	ND	0.0062	0.0019	mg/kg	
74-87-3	Methyl chloride	ND	0.0062	0.0018	mg/kg	
74-95-3	Methylene bromide	ND	0.0062	0.0025	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0030	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.062	0.0084	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0062	0.0018	mg/kg	
91-20-3	Naphthalene	ND	0.0062	0.0015	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0062	0.0014	mg/kg	
100-42-5	Styrene	ND	0.0062	0.0016	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0062	0.0017	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0062	0.0015	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0062	0.0018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0062	0.0017	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0062	0.0015	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0062	0.0017	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0062	0.0013	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0062	0.0014	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0062	0.0014	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0062	0.0016	mg/kg	
108-88-3	Toluene	ND	0.0062	0.0016	mg/kg	
79-01-6	Trichloroethylene	ND	0.0062	0.0016	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0062	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0062	0.0017	mg/kg	
1330-20-7	Xylene (total)	ND	0.019	0.0047	mg/kg	
	m,p-Xylene	ND	0.012	0.0031	mg/kg	
95-47-6	o-Xylene	ND	0.0062	0.0016	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	96%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-8		
Lab Sample ID:	T28959-13	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.0
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-8		
Lab Sample ID:	T28959-13	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	78.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023143.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	31	8.7	mg/kg	
	TPH (> C12-C28)	ND	31	8.3	mg/kg	
	TPH (> C28-C35)	ND	31	8.3	mg/kg	
	TPH (C6-C35)	ND	31	8.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		70-130%
98-08-8	aaa-Trifluorotoluene	90%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-10		
Lab Sample ID:	T28959-14	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	81.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004223.D	2	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.37 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6.9	0.99	mg/kg	
71-43-2	Benzene	ND	0.69	0.19	mg/kg	
108-86-1	Bromobenzene	ND	0.69	0.17	mg/kg	
74-97-5	Bromochloromethane	ND	0.69	0.20	mg/kg	
75-27-4	Bromodichloromethane	ND	0.69	0.19	mg/kg	
75-25-2	Bromoform	ND	0.69	0.17	mg/kg	
104-51-8	n-Butylbenzene	0.900	0.69	0.13	mg/kg	
135-98-8	sec-Butylbenzene	0.834	0.69	0.16	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.69	0.14	mg/kg	
108-90-7	Chlorobenzene	ND	0.69	0.19	mg/kg	
75-00-3	Chloroethane	ND	0.69	0.20	mg/kg	
67-66-3	Chloroform	ND	0.69	0.17	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.69	0.16	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.69	0.16	mg/kg	
75-15-0	Carbon disulfide	ND	1.4	0.17	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.69	0.15	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.69	0.18	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.69	0.17	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.69	0.16	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.69	0.19	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.69	0.19	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.69	0.19	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.69	0.20	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.69	0.20	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.69	0.15	mg/kg	
124-48-1	Dibromochloromethane	ND	0.69	0.19	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.69	0.15	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.69	0.19	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.69	0.17	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.69	0.17	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.69	0.16	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.69	0.17	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-10		
Lab Sample ID:	T28959-14	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	81.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.69	0.18	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.69	0.19	mg/kg	
100-41-4	Ethylbenzene	ND	0.69	0.17	mg/kg	
591-78-6	2-Hexanone	ND	6.9	0.94	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.69	0.16	mg/kg	
98-82-8	Isopropylbenzene	1.04	0.69	0.16	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.69	0.17	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	6.9	0.96	mg/kg	
74-83-9	Methyl bromide	ND	0.69	0.21	mg/kg	
74-87-3	Methyl chloride	ND	0.69	0.20	mg/kg	
74-95-3	Methylene bromide	ND	0.69	0.28	mg/kg	
75-09-2	Methylene chloride	ND	1.4	0.34	mg/kg	
78-93-3	Methyl ethyl ketone	ND	6.9	0.93	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.69	0.20	mg/kg	
91-20-3	Naphthalene	0.853	0.69	0.17	mg/kg	
103-65-1	n-Propylbenzene	1.55	0.69	0.15	mg/kg	
100-42-5	Styrene	ND	0.69	0.17	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.69	0.19	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.69	0.17	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.69	0.20	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.69	0.19	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.69	0.17	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.69	0.19	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.69	0.14	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.69	0.15	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.69	0.15	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.69	0.18	mg/kg	
108-88-3	Toluene	ND	0.69	0.17	mg/kg	
79-01-6	Trichloroethylene	ND	0.69	0.18	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.69	0.14	mg/kg	
75-01-4	Vinyl chloride	ND	0.69	0.19	mg/kg	
1330-20-7	Xylene (total)	ND	2.1	0.52	mg/kg	
	m,p-Xylene	ND	1.4	0.35	mg/kg	
95-47-6	o-Xylene	ND	0.69	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-121%
2037-26-5	Toluene-D8	101%		76-132%
460-00-4	4-Bromofluorobenzene	117%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-10		
Lab Sample ID:	T28959-14	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	81.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	79%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB04-10		
Lab Sample ID:	T28959-14	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	81.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023144.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	149	30	8.5	mg/kg	
	TPH (> C12-C28)	86.3	30	8.1	mg/kg	
	TPH (> C28-C35)	ND	30	8.1	mg/kg	
	TPH (C6-C35)	236	30	8.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		70-130%
98-08-8	aaa-Trifluorotoluene	83%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-8		
Lab Sample ID:	T28959-15	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	92.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004180.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.054	0.0078	mg/kg	
71-43-2	Benzene	ND	0.0054	0.0015	mg/kg	
108-86-1	Bromobenzene	ND	0.0054	0.0014	mg/kg	
74-97-5	Bromochloromethane	ND	0.0054	0.0016	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0054	0.0015	mg/kg	
75-25-2	Bromoform	ND	0.0054	0.0013	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0054	0.0011	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0054	0.0012	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0054	0.0011	mg/kg	
108-90-7	Chlorobenzene	ND	0.0054	0.0015	mg/kg	
75-00-3	Chloroethane	ND	0.0054	0.0015	mg/kg	
67-66-3	Chloroform	ND	0.0054	0.0014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0054	0.0013	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0054	0.0012	mg/kg	
75-15-0	Carbon disulfide	ND	0.011	0.0014	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0054	0.0012	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0054	0.0014	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0054	0.0014	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0054	0.0013	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0054	0.0015	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0054	0.0015	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0054	0.0015	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0054	0.0016	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0054	0.0016	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0054	0.0012	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0054	0.0015	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0054	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0054	0.0015	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0054	0.0014	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0054	0.0013	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0054	0.0012	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0054	0.0013	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-8		
Lab Sample ID:	T28959-15	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	92.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0054	0.0014	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0054	0.0015	mg/kg	
100-41-4	Ethylbenzene	ND	0.0054	0.0014	mg/kg	
591-78-6	2-Hexanone	ND	0.054	0.0074	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0054	0.0013	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0054	0.0013	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0054	0.0013	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.054	0.0076	mg/kg	
74-83-9	Methyl bromide	ND	0.0054	0.0016	mg/kg	
74-87-3	Methyl chloride	ND	0.0054	0.0016	mg/kg	
74-95-3	Methylene bromide	ND	0.0054	0.0022	mg/kg	
75-09-2	Methylene chloride	ND	0.011	0.0027	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.054	0.0073	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0054	0.0016	mg/kg	
91-20-3	Naphthalene	ND	0.0054	0.0013	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0054	0.0012	mg/kg	
100-42-5	Styrene	ND	0.0054	0.0014	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0054	0.0015	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0054	0.0013	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0054	0.0016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0054	0.0015	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0054	0.0013	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0054	0.0015	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0054	0.0011	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0054	0.0012	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0054	0.0012	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0054	0.0014	mg/kg	
108-88-3	Toluene	ND	0.0054	0.0014	mg/kg	
79-01-6	Trichloroethylene	ND	0.0054	0.0014	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0054	0.0011	mg/kg	
75-01-4	Vinyl chloride	ND	0.0054	0.0015	mg/kg	
1330-20-7	Xylene (total)	ND	0.016	0.0041	mg/kg	
	m,p-Xylene	ND	0.011	0.0027	mg/kg	
95-47-6	o-Xylene	ND	0.0054	0.0014	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-121%
2037-26-5	Toluene-D8	95%		76-132%
460-00-4	4-Bromofluorobenzene	93%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-8		
Lab Sample ID:	T28959-15	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	92.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	86%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-8		
Lab Sample ID:	T28959-15	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	92.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023145.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	27	7.5	mg/kg	
	TPH (> C12-C28)	ND	27	7.2	mg/kg	
	TPH (> C28-C35)	ND	27	7.2	mg/kg	
	TPH (C6-C35)	ND	27	7.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		70-130%
98-08-8	aaa-Trifluorotoluene	95%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-14		
Lab Sample ID:	T28959-16	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004181.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.59 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.057	0.0082	mg/kg	
71-43-2	Benzene	ND	0.0057	0.0016	mg/kg	
108-86-1	Bromobenzene	ND	0.0057	0.0015	mg/kg	
74-97-5	Bromochloromethane	ND	0.0057	0.0016	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0057	0.0016	mg/kg	
75-25-2	Bromoform	ND	0.0057	0.0014	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0057	0.0011	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0057	0.0013	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0057	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0057	0.0016	mg/kg	
75-00-3	Chloroethane	ND	0.0057	0.0016	mg/kg	
67-66-3	Chloroform	ND	0.0057	0.0014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0057	0.0014	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0057	0.0013	mg/kg	
75-15-0	Carbon disulfide	ND	0.011	0.0015	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0057	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0057	0.0015	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0057	0.0014	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0057	0.0014	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0057	0.0016	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0057	0.0016	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0057	0.0016	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0057	0.0017	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0057	0.0016	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0057	0.0013	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0057	0.0016	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0057	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0057	0.0016	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0057	0.0014	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0057	0.0014	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0057	0.0013	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0057	0.0014	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-14		
Lab Sample ID:	T28959-16	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0057	0.0015	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0057	0.0015	mg/kg	
100-41-4	Ethylbenzene	ND	0.0057	0.0014	mg/kg	
591-78-6	2-Hexanone	ND	0.057	0.0078	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0057	0.0013	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0057	0.0014	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0057	0.0014	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.057	0.0080	mg/kg	
74-83-9	Methyl bromide	ND	0.0057	0.0017	mg/kg	
74-87-3	Methyl chloride	ND	0.0057	0.0017	mg/kg	
74-95-3	Methylene bromide	ND	0.0057	0.0023	mg/kg	
75-09-2	Methylene chloride	ND	0.011	0.0028	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.057	0.0077	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0057	0.0017	mg/kg	
91-20-3	Naphthalene	ND	0.0057	0.0014	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0057	0.0013	mg/kg	
100-42-5	Styrene	ND	0.0057	0.0015	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0057	0.0016	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0057	0.0014	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0057	0.0016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0057	0.0016	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0057	0.0014	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0057	0.0016	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0057	0.0012	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0057	0.0013	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0057	0.0012	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0057	0.0015	mg/kg	
108-88-3	Toluene	ND	0.0057	0.0014	mg/kg	
79-01-6	Trichloroethylene	ND	0.0057	0.0015	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0057	0.0011	mg/kg	
75-01-4	Vinyl chloride	ND	0.0057	0.0016	mg/kg	
1330-20-7	Xylene (total)	ND	0.017	0.0043	mg/kg	
	m,p-Xylene	ND	0.011	0.0029	mg/kg	
95-47-6	o-Xylene	ND	0.0057	0.0014	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	93%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-14		
Lab Sample ID:	T28959-16	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.1
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	83%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB06-14		
Lab Sample ID:	T28959-16	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	78.1
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023150.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	31	8.7	mg/kg	
	TPH (> C12-C28)	ND	31	8.3	mg/kg	
	TPH (> C28-C35)	ND	31	8.3	mg/kg	
	TPH (C6-C35)	ND	31	8.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		70-130%
98-08-8	aaa-Trifluorotoluene	80%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-8		
Lab Sample ID:	T28959-17	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	77.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004225.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume
Run #1	5.86 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0105	0.055	0.0079	mg/kg	J
71-43-2	Benzene	0.0024	0.0055	0.0015	mg/kg	J
108-86-1	Bromobenzene	ND	0.0055	0.0014	mg/kg	
74-97-5	Bromochloromethane	ND	0.0055	0.0016	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0055	0.0016	mg/kg	
75-25-2	Bromoform	ND	0.0055	0.0013	mg/kg	
104-51-8	n-Butylbenzene	0.0331	0.0055	0.0011	mg/kg	
135-98-8	sec-Butylbenzene	0.0383	0.0055	0.0012	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0055	0.0011	mg/kg	
108-90-7	Chlorobenzene	ND	0.0055	0.0015	mg/kg	
75-00-3	Chloroethane	ND	0.0055	0.0016	mg/kg	
67-66-3	Chloroform	ND	0.0055	0.0014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0055	0.0013	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0055	0.0012	mg/kg	
75-15-0	Carbon disulfide	0.0071	0.011	0.0014	mg/kg	J
56-23-5	Carbon tetrachloride	ND	0.0055	0.0012	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0055	0.0014	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0055	0.0014	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0055	0.0013	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0055	0.0016	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0055	0.0015	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0055	0.0015	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0055	0.0016	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0055	0.0016	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0055	0.0012	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0055	0.0015	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0055	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0055	0.0015	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0055	0.0014	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0055	0.0013	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0055	0.0013	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0055	0.0013	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-8		
Lab Sample ID:	T28959-17	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	77.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0055	0.0014	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0055	0.0015	mg/kg	
100-41-4	Ethylbenzene	0.0055	0.0055	0.0014	mg/kg	
591-78-6	2-Hexanone	ND	0.055	0.0076	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0055	0.0013	mg/kg	
98-82-8	Isopropylbenzene	0.0358	0.0055	0.0013	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0055	0.0013	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.055	0.0077	mg/kg	
74-83-9	Methyl bromide	ND	0.0055	0.0017	mg/kg	
74-87-3	Methyl chloride	ND	0.0055	0.0016	mg/kg	
74-95-3	Methylene bromide	ND	0.0055	0.0022	mg/kg	
75-09-2	Methylene chloride	ND	0.011	0.0027	mg/kg	
78-93-3	Methyl ethyl ketone	0.0155	0.055	0.0074	mg/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	0.0055	0.0016	mg/kg	
91-20-3	Naphthalene	0.0103	0.0055	0.0014	mg/kg	
103-65-1	n-Propylbenzene	0.0669	0.0055	0.0012	mg/kg	
100-42-5	Styrene	ND	0.0055	0.0014	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0055	0.0015	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0055	0.0013	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0055	0.0016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0055	0.0015	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0055	0.0013	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0055	0.0015	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0055	0.0011	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0055	0.0012	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0055	0.0012	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0055	0.0015	mg/kg	
108-88-3	Toluene	ND	0.0055	0.0014	mg/kg	
79-01-6	Trichloroethylene	ND	0.0055	0.0014	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0055	0.0011	mg/kg	
75-01-4	Vinyl chloride	ND	0.0055	0.0015	mg/kg	
1330-20-7	Xylene (total)	ND	0.017	0.0042	mg/kg	
	m,p-Xylene	ND	0.011	0.0028	mg/kg	
95-47-6	o-Xylene	ND	0.0055	0.0014	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	111%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-8		
Lab Sample ID:	T28959-17	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	77.3
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	81%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-8		
Lab Sample ID:	T28959-17	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	77.3
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023151.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	31.3	32	8.9	mg/kg	J
	TPH (> C12-C28)	62.0	32	8.6	mg/kg	
	TPH (> C28-C35)	ND	32	8.6	mg/kg	
	TPH (C6-C35)	93.3	32	8.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		70-130%
98-08-8	aaa-Trifluorotoluene	100%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-10		
Lab Sample ID:	T28959-18	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.8
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004218.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2	X004239.D	2	05/18/09	OM	n/a	n/a	VX180

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.16 g	5.0 ml	100 ul
Run #2	5.16 g	5.0 ml	100 ul

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	3.7	0.53	mg/kg	
71-43-2	Benzene	0.276	0.37	0.10	mg/kg	J
108-86-1	Bromobenzene	ND	0.37	0.093	mg/kg	
74-97-5	Bromochloromethane	ND	0.37	0.11	mg/kg	
75-27-4	Bromodichloromethane	ND	0.37	0.10	mg/kg	
75-25-2	Bromoform	ND	0.37	0.090	mg/kg	
104-51-8	n-Butylbenzene	7.04	0.37	0.071	mg/kg	
135-98-8	sec-Butylbenzene	2.91	0.37	0.083	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.37	0.074	mg/kg	
108-90-7	Chlorobenzene	ND	0.37	0.10	mg/kg	
75-00-3	Chloroethane	ND	0.37	0.10	mg/kg	
67-66-3	Chloroform	ND	0.37	0.092	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.37	0.087	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.37	0.083	mg/kg	
75-15-0	Carbon disulfide	ND	0.73	0.093	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.37	0.081	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.37	0.095	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.37	0.092	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.37	0.087	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.37	0.10	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.37	0.10	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.37	0.10	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.37	0.11	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.37	0.11	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.37	0.081	mg/kg	
124-48-1	Dibromochloromethane	ND	0.37	0.10	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.37	0.079	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.37	0.10	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.37	0.092	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.37	0.090	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.37	0.084	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.37	0.089	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-10		
Lab Sample ID:	T28959-18	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.8
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.37	0.096	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.37	0.099	mg/kg	
100-41-4	Ethylbenzene	0.571	0.37	0.092	mg/kg	
591-78-6	2-Hexanone	ND	3.7	0.50	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.37	0.086	mg/kg	
98-82-8	Isopropylbenzene	8.68	0.37	0.087	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.37	0.088	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	3.7	0.51	mg/kg	
74-83-9	Methyl bromide	ND	0.37	0.11	mg/kg	
74-87-3	Methyl chloride	ND	0.37	0.11	mg/kg	
74-95-3	Methylene bromide	ND	0.37	0.15	mg/kg	
75-09-2	Methylene chloride	ND	0.73	0.18	mg/kg	
78-93-3	Methyl ethyl ketone	ND	3.7	0.49	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.37	0.11	mg/kg	
91-20-3	Naphthalene	8.76	0.37	0.090	mg/kg	
103-65-1	n-Propylbenzene	16.2 [b]	0.73	0.16	mg/kg	
100-42-5	Styrene	ND	0.37	0.093	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.37	0.10	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.37	0.088	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.37	0.11	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.37	0.10	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.37	0.088	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.37	0.10	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.37	0.074	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.37	0.081	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.37	0.080	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.37	0.097	mg/kg	
108-88-3	Toluene	0.382	0.37	0.092	mg/kg	
79-01-6	Trichloroethylene	ND	0.37	0.094	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.37	0.073	mg/kg	
75-01-4	Vinyl chloride	ND	0.37	0.10	mg/kg	
1330-20-7	Xylene (total)	ND	1.1	0.28	mg/kg	
	m,p-Xylene	ND	0.73	0.18	mg/kg	
95-47-6	o-Xylene	ND	0.37	0.092	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%	99%	70-121%
2037-26-5	Toluene-D8	96%	105%	76-132%
460-00-4	4-Bromofluorobenzene	117%	118%	73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-10		
Lab Sample ID:	T28959-18	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.8
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	79%	95%	57-122%

(a) Elevated reporting limits due to matrix interference.
(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB09-10		
Lab Sample ID:	T28959-18	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	79.8
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023152.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	595	30	8.5	mg/kg	
	TPH (> C12-C28)	388	30	8.2	mg/kg	
	TPH (> C28-C35)	ND	30	8.2	mg/kg	
	TPH (C6-C35)	983	30	8.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		70-130%
98-08-8	aaa-Trifluorotoluene	79%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-8		
Lab Sample ID:	T28959-19	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.5
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004182.D	1	05/14/09	OM	n/a	n/a	VX178
Run #2							

	Initial Weight	Final Volume
Run #1	5.17 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.062	0.0089	mg/kg	
71-43-2	Benzene	ND	0.0062	0.0017	mg/kg	
108-86-1	Bromobenzene	ND	0.0062	0.0016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0062	0.0018	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0062	0.0017	mg/kg	
75-25-2	Bromoform	ND	0.0062	0.0015	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0062	0.0012	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0062	0.0014	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0062	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0062	0.0017	mg/kg	
75-00-3	Chloroethane	ND	0.0062	0.0017	mg/kg	
67-66-3	Chloroform	ND	0.0062	0.0015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0062	0.0015	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0062	0.0014	mg/kg	
75-15-0	Carbon disulfide	ND	0.012	0.0016	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0062	0.0014	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0062	0.0016	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0062	0.0016	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0062	0.0015	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0062	0.0017	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0062	0.0017	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0062	0.0017	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0062	0.0018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0062	0.0018	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0062	0.0014	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0062	0.0017	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0062	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0062	0.0017	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0062	0.0016	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0062	0.0015	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0062	0.0014	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0062	0.0015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-8		
Lab Sample ID:	T28959-19	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.5
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0062	0.0016	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0062	0.0017	mg/kg	
100-41-4	Ethylbenzene	ND	0.0062	0.0016	mg/kg	
591-78-6	2-Hexanone	ND	0.062	0.0084	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0062	0.0014	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0062	0.0015	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0062	0.0015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.062	0.0086	mg/kg	
74-83-9	Methyl bromide	ND	0.0062	0.0018	mg/kg	
74-87-3	Methyl chloride	ND	0.0062	0.0018	mg/kg	
74-95-3	Methylene bromide	ND	0.0062	0.0025	mg/kg	
75-09-2	Methylene chloride	ND	0.012	0.0030	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.062	0.0083	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0062	0.0018	mg/kg	
91-20-3	Naphthalene	ND	0.0062	0.0015	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0062	0.0014	mg/kg	
100-42-5	Styrene	ND	0.0062	0.0016	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0062	0.0017	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0062	0.0015	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0062	0.0018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0062	0.0017	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0062	0.0015	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0062	0.0017	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0062	0.0012	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0062	0.0014	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0062	0.0013	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0062	0.0016	mg/kg	
108-88-3	Toluene	ND	0.0062	0.0016	mg/kg	
79-01-6	Trichloroethylene	ND	0.0062	0.0016	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0062	0.0012	mg/kg	
75-01-4	Vinyl chloride	ND	0.0062	0.0017	mg/kg	
1330-20-7	Xylene (total)	ND	0.018	0.0047	mg/kg	
	m,p-Xylene	ND	0.012	0.0031	mg/kg	
95-47-6	o-Xylene	ND	0.0062	0.0016	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-121%
2037-26-5	Toluene-D8	85%		76-132%
460-00-4	4-Bromofluorobenzene	100%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-8		
Lab Sample ID:	T28959-19	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	78.5
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	87%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-8		
Lab Sample ID:	T28959-19	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	78.5
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023153.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	47.6	31	8.6	mg/kg	
	TPH (> C12-C28)	41.3	31	8.2	mg/kg	
	TPH (> C28-C35)	ND	31	8.2	mg/kg	
	TPH (C6-C35)	88.9	31	8.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		70-130%
98-08-8	aaa-Trifluorotoluene	97%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-10		
Lab Sample ID:	T28959-20	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.6
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X004217.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.70 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	3.4	0.49	mg/kg	
71-43-2	Benzene	ND	0.34	0.094	mg/kg	
108-86-1	Bromobenzene	ND	0.34	0.086	mg/kg	
74-97-5	Bromochloromethane	ND	0.34	0.098	mg/kg	
75-27-4	Bromodichloromethane	ND	0.34	0.096	mg/kg	
75-25-2	Bromoform	ND	0.34	0.083	mg/kg	
104-51-8	n-Butylbenzene	3.67	0.34	0.066	mg/kg	
135-98-8	sec-Butylbenzene	1.79	0.34	0.077	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.34	0.069	mg/kg	
108-90-7	Chlorobenzene	ND	0.34	0.095	mg/kg	
75-00-3	Chloroethane	ND	0.34	0.096	mg/kg	
67-66-3	Chloroform	ND	0.34	0.085	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.34	0.081	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.34	0.077	mg/kg	
75-15-0	Carbon disulfide	ND	0.68	0.086	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.34	0.075	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.34	0.088	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.34	0.086	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.34	0.081	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.34	0.096	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.34	0.095	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.34	0.093	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.34	0.099	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.34	0.098	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.34	0.075	mg/kg	
124-48-1	Dibromochloromethane	ND	0.34	0.094	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.34	0.073	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.34	0.093	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.34	0.086	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.34	0.083	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.34	0.078	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.34	0.082	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-10		
Lab Sample ID:	T28959-20	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.6
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.34	0.089	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.34	0.092	mg/kg	
100-41-4	Ethylbenzene	ND	0.34	0.086	mg/kg	
591-78-6	2-Hexanone	ND	3.4	0.46	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.34	0.079	mg/kg	
98-82-8	Isopropylbenzene	4.93	0.34	0.081	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.34	0.081	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	3.4	0.47	mg/kg	
74-83-9	Methyl bromide	ND	0.34	0.10	mg/kg	
74-87-3	Methyl chloride	ND	0.34	0.098	mg/kg	
74-95-3	Methylene bromide	ND	0.34	0.14	mg/kg	
75-09-2	Methylene chloride	ND	0.68	0.17	mg/kg	
78-93-3	Methyl ethyl ketone	ND	3.4	0.46	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.34	0.10	mg/kg	
91-20-3	Naphthalene	0.825	0.34	0.084	mg/kg	
103-65-1	n-Propylbenzene	9.50	0.34	0.075	mg/kg	
100-42-5	Styrene	ND	0.34	0.086	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.34	0.095	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.34	0.081	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.34	0.098	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.34	0.094	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.34	0.081	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.34	0.095	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.34	0.069	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.34	0.075	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.34	0.074	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.34	0.090	mg/kg	
108-88-3	Toluene	ND	0.34	0.086	mg/kg	
79-01-6	Trichloroethylene	ND	0.34	0.087	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.34	0.068	mg/kg	
75-01-4	Vinyl chloride	ND	0.34	0.092	mg/kg	
1330-20-7	Xylene (total)	ND	1.0	0.26	mg/kg	
	m,p-Xylene	ND	0.68	0.17	mg/kg	
95-47-6	o-Xylene	ND	0.34	0.086	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-121%
2037-26-5	Toluene-D8	94%		76-132%
460-00-4	4-Bromofluorobenzene	112%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-10		
Lab Sample ID:	T28959-20	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	79.6
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	79%		57-122%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB10-10		
Lab Sample ID:	T28959-20	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	79.6
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL023154.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	243	31	8.6	mg/kg	
	TPH (> C12-C28)	240	31	8.2	mg/kg	
	TPH (> C28-C35)	ND	31	8.2	mg/kg	
	TPH (C6-C35)	484	31	8.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		70-130%
98-08-8	aaa-Trifluorotoluene	75%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW01-1		
Lab Sample ID:	T28959-21	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0000653.D	1	05/18/09	RR	n/a	n/a	VC27
Run #2	Y0032883.D	25	05/14/09	JL	n/a	n/a	VY2172

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.0026	mg/l	
71-43-2	Benzene	ND	0.0020	0.00046	mg/l	
108-86-1	Bromobenzene	ND	0.0020	0.00042	mg/l	
74-97-5	Bromochloromethane	ND	0.0020	0.00049	mg/l	
75-27-4	Bromodichloromethane	ND	0.0020	0.00042	mg/l	
75-25-2	Bromoform	ND	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.0152	0.0020	0.00055	mg/l	
135-98-8	sec-Butylbenzene	0.0072	0.0020	0.00048	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0020	0.00083	mg/l	
108-90-7	Chlorobenzene	ND	0.0020	0.00042	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00039	mg/l	
67-66-3	Chloroform	ND	0.0020	0.00054	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0020	0.00038	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0020	0.00050	mg/l	
75-15-0	Carbon disulfide	ND	0.0020	0.00051	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0020	0.00045	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0020	0.00041	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0020	0.00048	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0020	0.00035	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.0011	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00047	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0020	0.00050	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0020	0.00053	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0020	0.00041	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0020	0.00058	mg/l	
124-48-1	Dibromochloromethane	ND	0.0020	0.00046	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00053	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0020	0.00043	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0020	0.00053	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0020	0.00042	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0020	0.00049	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0020	0.00046	mg/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW01-1		
Lab Sample ID:	T28959-21	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0020	0.00046	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0020	0.00036	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00045	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0020	0.0012	mg/l	
98-82-8	Isopropylbenzene	0.0153	0.0020	0.00041	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0020	0.00040	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0025	mg/l	
74-83-9	Methyl bromide	ND	0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND	0.0020	0.00042	mg/l	
74-95-3	Methylene bromide	ND	0.0020	0.00041	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0025	mg/l	
1634-04-4	Methyl Tert Butyl Ether	3.55 [a]	0.050	0.0065	mg/l	
91-20-3	Naphthalene	0.0163	0.0050	0.00039	mg/l	
103-65-1	n-Propylbenzene	0.0292	0.0020	0.00051	mg/l	
100-42-5	Styrene	ND	0.0020	0.00035	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0020	0.00037	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0020	0.00047	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0020	0.00042	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0020	0.00044	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0020	0.00043	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0020	0.00069	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0020	0.00053	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0020	0.00046	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0020	0.00044	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00048	mg/l	
79-01-6	Trichloroethylene	ND	0.0020	0.00047	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00047	mg/l	
75-01-4	Vinyl chloride	ND	0.0020	0.00042	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0014	mg/l	
	m,p-Xylene	ND	0.0040	0.00094	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00042	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	107%	79-122%
17060-07-0	1,2-Dichloroethane-D4	95%	94%	75-121%
2037-26-5	Toluene-D8	114%	119%	87-119%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW01-1		
Lab Sample ID:	T28959-21	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	110%	98%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW01-1		
Lab Sample ID:	T28959-21	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF189488.D	1	05/18/09	SS	05/14/09	OP12059	GIF814
Run #2							

	Initial Volume	Final Volume
Run #1	30.1 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	1.87	2.5	0.67	mg/l	J
	TPH (> C12-C28)	2.95	2.5	0.31	mg/l	
	TPH (> C28-C35)	ND	2.5	0.31	mg/l	
	TPH (C6-C35)	4.82	2.5	0.31	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		70-130%
98-08-8	aaa-Trifluorotoluene	94%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW02-1		
Lab Sample ID:	T28959-22	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0000647.D	1	05/18/09	RR	n/a	n/a	VC27
Run #2	Y0032884.D	25	05/14/09	JL	n/a	n/a	VY2172

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.0026	mg/l	
71-43-2	Benzene	ND	0.0020	0.00046	mg/l	
108-86-1	Bromobenzene	ND	0.0020	0.00042	mg/l	
74-97-5	Bromochloromethane	ND	0.0020	0.00049	mg/l	
75-27-4	Bromodichloromethane	ND	0.0020	0.00042	mg/l	
75-25-2	Bromoform	ND	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	ND	0.0020	0.00055	mg/l	
135-98-8	sec-Butylbenzene	0.0174	0.0020	0.00048	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0020	0.00083	mg/l	
108-90-7	Chlorobenzene	ND	0.0020	0.00042	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00039	mg/l	
67-66-3	Chloroform	ND	0.0020	0.00054	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0020	0.00038	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0020	0.00050	mg/l	
75-15-0	Carbon disulfide	ND	0.0020	0.00051	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0020	0.00045	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0020	0.00041	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0020	0.00048	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0020	0.00035	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.0011	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00047	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0020	0.00050	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0020	0.00053	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0020	0.00041	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0020	0.00058	mg/l	
124-48-1	Dibromochloromethane	ND	0.0020	0.00046	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00053	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0020	0.00043	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0020	0.00053	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0020	0.00042	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0020	0.00049	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0020	0.00046	mg/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW02-1		
Lab Sample ID:	T28959-22	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0020	0.00046	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0020	0.00036	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00045	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0020	0.0012	mg/l	
98-82-8	Isopropylbenzene	0.130	0.0020	0.00041	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0020	0.00040	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0025	mg/l	
74-83-9	Methyl bromide	ND	0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND	0.0020	0.00042	mg/l	
74-95-3	Methylene bromide	ND	0.0020	0.00041	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0025	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0020	0.00026	mg/l	
91-20-3	Naphthalene	0.167	0.0050	0.00039	mg/l	
103-65-1	n-Propylbenzene	0.169 [a]	0.050	0.013	mg/l	
100-42-5	Styrene	ND	0.0020	0.00035	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0020	0.00037	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0020	0.00047	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0020	0.00042	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0020	0.00044	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0020	0.00043	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0020	0.00069	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0020	0.00053	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0020	0.00046	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0020	0.00044	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00048	mg/l	
79-01-6	Trichloroethylene	ND	0.0020	0.00047	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00047	mg/l	
75-01-4	Vinyl chloride	ND	0.0020	0.00042	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0014	mg/l	
	m,p-Xylene	ND	0.0040	0.00094	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00042	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	112%	79-122%
17060-07-0	1,2-Dichloroethane-D4	99%	100%	75-121%
2037-26-5	Toluene-D8	110%	113%	87-119%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW02-1		
Lab Sample ID:	T28959-22	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%	102%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW02-1		
Lab Sample ID:	T28959-22	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF189489.D	1	05/18/09	SS	05/14/09	OP12059	GIF814
Run #2							

	Initial Volume	Final Volume
Run #1	30.1 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	2.40	2.5	0.67	mg/l	J
	TPH (> C12-C28)	2.99	2.5	0.31	mg/l	
	TPH (> C28-C35)	ND	2.5	0.31	mg/l	
	TPH (C6-C35)	5.39	2.5	0.31	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		70-130%
98-08-8	aaa-Trifluorotoluene	85%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW03-1		
Lab Sample ID:	T28959-23	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0000655.D	1	05/18/09	RR	n/a	n/a	VC27
Run #2	Y0032894.D	25	05/15/09	JL	n/a	n/a	VY2173

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0204	0.050	0.0026	mg/l	J
71-43-2	Benzene	0.0393	0.0020	0.00046	mg/l	
108-86-1	Bromobenzene	ND	0.0020	0.00042	mg/l	
74-97-5	Bromochloromethane	ND	0.0020	0.00049	mg/l	
75-27-4	Bromodichloromethane	ND	0.0020	0.00042	mg/l	
75-25-2	Bromoform	ND	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	ND	0.0020	0.00055	mg/l	
135-98-8	sec-Butylbenzene	0.0263	0.0020	0.00048	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0020	0.00083	mg/l	
108-90-7	Chlorobenzene	ND	0.0020	0.00042	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00039	mg/l	
67-66-3	Chloroform	ND	0.0020	0.00054	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0020	0.00038	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0020	0.00050	mg/l	
75-15-0	Carbon disulfide	ND	0.0020	0.00051	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0020	0.00045	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0020	0.00041	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0020	0.00048	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0020	0.00035	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.0011	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00047	mg/l	
107-06-2	1,2-Dichloroethane	0.0018	0.0020	0.00050	mg/l	J
78-87-5	1,2-Dichloropropane	ND	0.0020	0.00053	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0020	0.00041	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0020	0.00058	mg/l	
124-48-1	Dibromochloromethane	ND	0.0020	0.00046	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00053	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0020	0.00043	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0020	0.00053	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0020	0.00042	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0020	0.00049	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0020	0.00046	mg/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW03-1		
Lab Sample ID:	T28959-23	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0020	0.00046	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0020	0.00036	mg/l	
100-41-4	Ethylbenzene	0.0171	0.0020	0.00045	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0020	0.0012	mg/l	
98-82-8	Isopropylbenzene	0.212 [a]	0.050	0.010	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0020	0.00040	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0025	mg/l	
74-83-9	Methyl bromide	ND	0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND	0.0020	0.00042	mg/l	
74-95-3	Methylene bromide	ND	0.0020	0.00041	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0025	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.0296	0.0020	0.00026	mg/l	
91-20-3	Naphthalene	0.176	0.0050	0.00039	mg/l	
103-65-1	n-Propylbenzene	0.359 [a]	0.050	0.013	mg/l	
100-42-5	Styrene	ND	0.0020	0.00035	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0020	0.00037	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0020	0.00047	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0020	0.00042	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0020	0.00044	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0020	0.00043	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0020	0.00069	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0020	0.00053	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0020	0.00046	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0020	0.00044	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	0.0033	0.0020	0.00048	mg/l	
79-01-6	Trichloroethylene	ND	0.0020	0.00047	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00047	mg/l	
75-01-4	Vinyl chloride	ND	0.0020	0.00042	mg/l	
1330-20-7	Xylene (total)	0.0081	0.0060	0.0014	mg/l	
	m,p-Xylene	0.0046	0.0040	0.00094	mg/l	
95-47-6	o-Xylene	0.0035	0.0020	0.00042	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%	109%	79-122%
17060-07-0	1,2-Dichloroethane-D4	83%	95%	75-121%
2037-26-5	Toluene-D8	111%	121%	87-119%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW03-1		
Lab Sample ID:	T28959-23	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%	108%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW03-1		
Lab Sample ID:	T28959-23	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF189490.D	1	05/18/09	SS	05/14/09	OP12059	GIF814
Run #2							

	Initial Volume	Final Volume
Run #1	30.2 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	5.43	2.5	0.67	mg/l	
	TPH (> C12-C28)	3.30	2.5	0.31	mg/l	
	TPH (> C28-C35)	ND	2.5	0.31	mg/l	
	TPH (C6-C35)	8.73	2.5	0.31	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		70-130%
98-08-8	aaa-Trifluorotoluene	79%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T28959-24	**Date Sampled:**	05/12/09
Matrix:	SO - Trip Blank Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X004213.D	1	05/15/09	OM	n/a	n/a	VX179
Run #2							

	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.0072	mg/kg	
71-43-2	Benzene	ND	0.0050	0.0014	mg/kg	
108-86-1	Bromobenzene	ND	0.0050	0.0013	mg/kg	
74-97-5	Bromochloromethane	ND	0.0050	0.0014	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0050	0.0014	mg/kg	
75-25-2	Bromoform	ND	0.0050	0.0012	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0050	0.00097	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0050	0.0011	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0050	0.0010	mg/kg	
108-90-7	Chlorobenzene	ND	0.0050	0.0014	mg/kg	
75-00-3	Chloroethane	ND	0.0050	0.0014	mg/kg	
67-66-3	Chloroform	ND	0.0050	0.0013	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0050	0.0012	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0050	0.0011	mg/kg	
75-15-0	Carbon disulfide	ND	0.010	0.0013	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0050	0.0011	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0050	0.0013	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0050	0.0013	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0050	0.0012	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	0.0014	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0050	0.0014	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0050	0.0014	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0050	0.0015	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0050	0.0014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0050	0.0011	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0050	0.0014	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0050	0.0011	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0050	0.0014	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0050	0.0013	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0050	0.0012	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0050	0.0012	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0050	0.0012	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T28959-24	**Date Sampled:**	05/12/09
Matrix:	SO - Trip Blank Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0050	0.0013	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0050	0.0014	mg/kg	
100-41-4	Ethylbenzene	ND	0.0050	0.0013	mg/kg	
591-78-6	2-Hexanone	ND	0.050	0.0068	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0050	0.0012	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0050	0.0012	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0050	0.0012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.050	0.0070	mg/kg	
74-83-9	Methyl bromide	ND	0.0050	0.0015	mg/kg	
74-87-3	Methyl chloride	ND	0.0050	0.0015	mg/kg	
74-95-3	Methylene bromide	ND	0.0050	0.0020	mg/kg	
75-09-2	Methylene chloride	ND	0.010	0.0025	mg/kg	
78-93-3	Methyl ethyl ketone	ND	0.050	0.0067	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	0.0015	mg/kg	
91-20-3	Naphthalene	ND	0.0050	0.0012	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0050	0.0011	mg/kg	
100-42-5	Styrene	ND	0.0050	0.0013	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0050	0.0014	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0050	0.0012	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0050	0.0014	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0050	0.0014	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0050	0.0012	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0050	0.0014	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0050	0.0010	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0050	0.0011	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0050	0.0011	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0050	0.0013	mg/kg	
108-88-3	Toluene	ND	0.0050	0.0013	mg/kg	
79-01-6	Trichloroethylene	ND	0.0050	0.0013	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0050	0.0010	mg/kg	
75-01-4	Vinyl chloride	ND	0.0050	0.0014	mg/kg	
1330-20-7	Xylene (total)	ND	0.015	0.0038	mg/kg	
	m,p-Xylene	ND	0.010	0.0025	mg/kg	
95-47-6	o-Xylene	ND	0.0050	0.0013	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-121%
2037-26-5	Toluene-D8	98%		76-132%
460-00-4	4-Bromofluorobenzene	103%		73-165%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T28959-24	**Date Sampled:**	05/12/09
Matrix:	SO - Trip Blank Soil	**Date Received:**	05/14/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	89%		57-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

Page 1 of 3

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: Bjackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis,TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	EnCore	NaHSO4	MeOH	None	VOA (8260) + MTBE	TPHTX1005 / (*) PAH	PAH (8270)	Sulfate, TDS, Chloride	LAB USE ONLY
1	USBRSSB01-8	5/12/09	1040	SO	2								X	✓	✓			
2	USBRSSB01-10	5/12/09	1040	SO	2								X	✓	✓			
3	USBRSSB03-8	5/12/09	~~1255~~ 1130	SO	2								X	✓	✓			
4	USBRSSB03-10	5/12/09	~~1255~~ 1130	SO	2								X	✓	✓			
5	USBRSSB02-6	5/12/09	0945	SO	2								X	✓	✓			
6	USBRSSB02-9	5/12/09	0945	SO	2								X	✓	✓			
7	USBRSSB05-8	5/12/09	1235	SO	2								X	✓	✓			
8	USBRSSB05-10	5/12/09	1235	SO	2								X	✓	✓			
9	USBRSSB08-12	5/12/09	1345	SO	2								X	✓	✓			
10	USBRSSB08-14	5/12/09	1345	SO	2								X	✓	✓			

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:

RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) Analysis
(*) Analyze Highest TPH Concentration For Both Soil and Groundwater For PAH.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	5/13/09 0943	1	2	5-14-9	2
Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp.
5		5		☐	☐ 2.0

T28959: Chain of Custody
Page 1 of 7

CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 2 of 3

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: BJackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis, TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	VOA (8260) + MTBE	TPHTX1005 / (*) PAH	PAH (8270)	Sulfate, TDS, Chloride
11	USBRSSB07-8	5/12/09	1425	SO	2								X	✓	✓		
12	USBRSSB07-10	5/12/09	1425	SO	2								X	✓	✓		
13	USBRSSB04-8	5/12/09	1525	SO	2								X	✓	✓		
14	USBRSSB04-10	5/12/09	1525	SO	2								X	✓	✓		
15	USBRSSB06-8	5/12/09	1610	SO	2								X	✓	✓		
16	USBRSSB06-14	5/12/09	1610	SO	2								X	✓	✓		
17	USBRSSB09-8	5/12/09	1715	SO	2								X	✓	✓		
18	USBRSSB09-10	5/12/09	1715	SO	2								X	✓	✓		
19	USBRSSB10-8	5/12/09	1750	SO	2								X	✓	✓		
20	USBRSSB10-10	5/12/09	1750	SO	2								X	✓	✓		

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

LAB USE ONLY

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:

RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only

Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) ANALYSIS.
(*) ANALYZE HIGHEST TPH Concentration FOR Both Soil AND GROUNDWATER FOR PAH.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/13/09 0943	1	2 [signature]	5/14 9:20	2 [signature]
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 2.0

3.1 3

T28959: Chain of Custody
Page 2 of 7

CHAIN OF CUSTODY

Page 3 of 3

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: BJackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis, TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	VOA (8260) + MTBE	TPHTX1005 (*) PAH	PAH (8270)	Sulfate, TDS, Chloride *	LAB USE ONLY
21	USBRGTW01-1	5/13/09	0720	GW	7	6							1	✓	✓			
22	USBRGTW02-1	5/13/09	0757	GW	7	6							1	✓	✓		✓	
23	USBRGTW03-1	5/13/09	0800	GW	7	6							1	✓	✓			
24-26	TRIP BLANK	5/12/09	0700	WQ	3	3								✓				

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:
RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) ANALYSIS.
(*) Analyze HIGHEST TPH Concentration FOR Both SOIL AND GROUNDWATER FOR PAH.
(*) USE PAH Container to Analyze Wet chem Parameters
Ensafe to contact lab.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/13/09-0943	1	2 [signature]	5-14-9 930	2 [signature]
Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp.
5		5		☐	☒ 2.0

T28959: Chain of Custody
Page 3 of 7

SAMPLE INSPECTION FORM

Accutest Job Number: T28959 Client: Enscafe Date/Time Received: 5-14-9

# of Coolers Received: 3 Thermometer #: IR-1 Temperature Adjustment Factor: -0.4

Cooler Temps: #1: 3.4 #2: 2.4 #3: 2.0°C #4: _____ #5: _____ #6: _____ #7: _____ #8: _____

Method of Delivery: (FEDEX) UPS Accutest Courier Greyhound Delivery Other

Airbill Numbers: _____

COOLER INFORMATION

- [ ] Custody seal missing or not intact
- [ ] Temperature criteria not met
- [ ] Wet ice received in cooler

CHAIN OF CUSTODY

- [ ] Chain of Custody not received
- [ ] Sample D/T unclear or missing
- [ ] Analyses unclear or missing
- [ ] COC not properly executed

SAMPLE INFORMATION

- [ ] Sample containers received broken
- [ ] VOC vials have headspace
- [ ] Sample labels missing or illegible
- [ ] ID on COC does not match label(s)
- [ ] D/T on COC does not match label(s)
- [ ] Sample/Bottles rcvd but no analysis on COC
- [ ] Sample listed on COC, but not received
- [ ] Bottles missing for requested analysis
- [ ] Insufficient volume for analysis
- [ ] Sample received improperly preserved

TRIP BLANK INFORMATION

- [ ] Trip Blank on COC but not received
- [ ] Trip Blank received but not on COC
- [ ] Trip Blank not intact
- [ ] Received Water Trip Blank
- [ ] Received Soil TB

Number of Encores? _____
Number of 5035 kits? _____
Number of lab-filtered metals? _____

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: 5-14-9

INFORMATION AND SAMPLE LABELING VERIFIED BY: _____

CORRECTIVE ACTIONS

Client Representative Notified: _____ **Date:** _____

By Accutest Representative: _____ **Via:** Phone Email

Client Instructions:

SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe Inc. INITIALS: E c

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
	1	US BRSS B01-8	5-12-9 1010	S	40Z	1	2-GG	1	<2	>12
	1	01-8	1010			2	VR	1	<2	>12
	2	01-10	1010			1	2-GG	1	<2	>12
	2	01-10	1010			2	VR	1	<2	>12
	3	03-8	1130			1	2-GG	1	<2	>12
	3	03-8				2	VR	1	<2	>12
	4	03-10				1	2-GG	1	<2	>12
	4	03-10				2	VR	1	<2	>12
	5	02-6	945			1	2-GG		<2	>12
	5	02-6				2	VR	1	<2	>12
	6	02-9				1	2-GG	1	<2	>12
	6	02-9				2	VR	1	<2	>12
	7	05-8	1235			1	2-GG	1	<2	>12
	7	05-8				2	VR	1	<2	>12
	8	05-10				1	2-GG	1	<2	>12
	8	05-10				2	VR	1	<2	>12
	9	03-12	1345			1	2-GG	1	<2	>12
	9	03-12				2	VR		<2	>12
	10	03-14				1	2-GG	1	<2	>12
	10	03-14				2	VR	1	<2	>12
	11	07-8	1445			1	2-GG	1	<2	>12
	11	07-8				2	VR	1	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe INITIALS: E C

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
	12	USBRSS B07-10	5-12-9 1425	S	4oz	1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	12	07-10	"			2	VR	1 2 3 4 5 6 7 8	<2 >12
	13	04-8	1525			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	13	04-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	14	04-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	14	04-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	15	06-8	1610			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	15	06-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	16	06-14				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	16	06-14				2	VR	1 2 3 4 5 6 7 8	<2 >12
	17	09-8	1715			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	17	09-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	18	09-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	18	09-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	19	10-8	1750			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	19	10-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	20	10-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	20	10-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	21	USBRGTW 01-1	5-13-9 720	W	1000ml	1	1-II	1 2 3 4 5 6 7 8	<2 >12
					4am	2-4	"	1 2 3 4 5 6 7 8	<2 >12
					"	5-7	VR	1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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T28959: Chain of Custody
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SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe INITIALS: GC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
	22	USBRG TW02-1	5-13-9 757	W	1000ml	1	II	1 2 3 4 5 6 7 8	<2	>12
					40ml	2-4	"	1 2 3 4 5 6 7 8	<2	>12
						5-7	VR	1 2 3 4 5 6 7 8	<2	>12
	23	03-1	0800		1000ml	1	II	1 2 3 4 5 6 7 8	<2	>12
					40	2-4	"	1 2 3 4 5 6 7 8	<2	>12
					"	5-7	VR	1 2 3 4 5 6 7 8	<2	>12
1	24	Trip Blank	—	—	40ml	1-2	VR	1 2 3 4 5 6 7 8	<2	>12
2	25	"	—	—				1 2 3 4 5 6 7 8	<2	>12
3	26	"	—	—				1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12

GC 5-14-9

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY2172-MB	Y0032874.D	1	05/14/09	JL	n/a	n/a	VY2172

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	0.26	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.51	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	86%	75-121%
2037-26-5	Toluene-D8	118%	87-119%
460-00-4	4-Bromofluorobenzene	109%	80-133%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX178-MB	X004172.D	1	05/14/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	7.2	ug/kg	
71-43-2	Benzene	ND	5.0	1.4	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.3	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.4	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.4	ug/kg	
75-25-2	Bromoform	ND	5.0	1.2	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.97	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.4	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.4	ug/kg	
67-66-3	Chloroform	ND	5.0	1.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.1	ug/kg	
75-15-0	Carbon disulfide	ND	10	1.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.1	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.4	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.1	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.3	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.4	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.3	ug/kg	
591-78-6	2-Hexanone	ND	50	6.8	ug/kg	

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX178-MB	X004172.D	1	05/14/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	5.0	1.2	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	50	7.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.5	ug/kg	
74-87-3	Methyl chloride	ND	5.0	1.5	ug/kg	
74-95-3	Methylene bromide	ND	5.0	2.0	ug/kg	
75-09-2	Methylene chloride	ND	10	2.5	ug/kg	
78-93-3	Methyl ethyl ketone	ND	50	6.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.5	ug/kg	
91-20-3	Naphthalene	ND	5.0	1.2	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.1	ug/kg	
100-42-5	Styrene	ND	5.0	1.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.3	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.3	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.4	ug/kg	
1330-20-7	Xylene (total)	ND	15	3.8	ug/kg	
	m,p-Xylene	ND	10	2.5	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.3	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	70-121%
2037-26-5	Toluene-D8	99%	76-132%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX178-MB	X004172.D	1	05/14/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	98%	73-165%
17060-07-0	1,2-Dichloroethane-D4	86%	57-122%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY2173-MB	Y0032893.D	1	05/15/09	JL	n/a	n/a	VY2173

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-23

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.0	0.41	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.51	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	118%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	75-121%
2037-26-5	Toluene-D8	120%*	87-119%
460-00-4	4-Bromofluorobenzene	103%	80-133%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX179-MB	X004210.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	7.2	ug/kg	
71-43-2	Benzene	ND	5.0	1.4	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.3	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.4	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.4	ug/kg	
75-25-2	Bromoform	ND	5.0	1.2	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.97	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.4	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.4	ug/kg	
67-66-3	Chloroform	ND	5.0	1.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.1	ug/kg	
75-15-0	Carbon disulfide	ND	10	1.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.1	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.4	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.1	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.3	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.4	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.3	ug/kg	
591-78-6	2-Hexanone	ND	50	6.8	ug/kg	

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX179-MB	X004210.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	5.0	1.2	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	50	7.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.5	ug/kg	
74-87-3	Methyl chloride	ND	5.0	1.5	ug/kg	
74-95-3	Methylene bromide	ND	5.0	2.0	ug/kg	
75-09-2	Methylene chloride	ND	10	2.5	ug/kg	
78-93-3	Methyl ethyl ketone	ND	50	6.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.5	ug/kg	
91-20-3	Naphthalene	ND	5.0	1.2	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.1	ug/kg	
100-42-5	Styrene	ND	5.0	1.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.3	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.3	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.4	ug/kg	
1330-20-7	Xylene (total)	ND	15	3.8	ug/kg	
	m,p-Xylene	ND	10	2.5	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.3	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	70-121%
2037-26-5	Toluene-D8	97%	76-132%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX179-MB	X004210.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	103%	73-165%
17060-07-0	1,2-Dichloroethane-D4	85%	57-122%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC27-MB	C0000641.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	2.6	ug/l	
71-43-2	Benzene	ND	2.0	0.46	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.42	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.49	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.42	ug/l	
75-25-2	Bromoform	ND	2.0	1.4	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.55	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.48	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.83	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.42	ug/l	
75-00-3	Chloroethane	ND	2.0	0.39	ug/l	
67-66-3	Chloroform	ND	2.0	0.54	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.50	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.51	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.45	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.41	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.48	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.35	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.1	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.47	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.53	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.41	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.58	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.53	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.42	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.49	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.46	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC27-MB	C0000641.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	2.0	1.2	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.41	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.40	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.5	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.42	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.41	ug/l	
75-09-2	Methylene chloride	ND	5.0	0.41	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.26	ug/l	
91-20-3	Naphthalene	ND	5.0	0.39	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.51	ug/l	
100-42-5	Styrene	ND	2.0	0.35	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.47	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.43	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.69	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.46	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.44	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.48	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.47	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.42	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	
	m,p-Xylene	ND	4.0	0.94	ug/l	
95-47-6	o-Xylene	ND	2.0	0.42	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	79-122%
17060-07-0	1,2-Dichloroethane-D4	101%	75-121%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC27-MB	C0000641.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	114%	87-119%
460-00-4	4-Bromofluorobenzene	96%	80-133%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX180-MB	X004238.D	1	05/18/09	OM	n/a	n/a	VX180

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-18

CAS No.	Compound	Result	RL	MDL	Units	Q
103-65-1	n-Propylbenzene	ND	5.0	1.1	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	70-121%
2037-26-5	Toluene-D8	105%	76-132%
460-00-4	4-Bromofluorobenzene	109%	73-165%
17060-07-0	1,2-Dichloroethane-D4	99%	57-122%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX178-BS	X004173.D	1	05/14/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	239	96	62-133
71-43-2	Benzene	50	47.5	95	70-114
108-86-1	Bromobenzene	50	45.7	91	73-112
74-97-5	Bromochloromethane	50	45.9	92	70-110
75-27-4	Bromodichloromethane	50	43.8	88	71-104
75-25-2	Bromoform	50	45.5	91	72-116
104-51-8	n-Butylbenzene	50	47.1	94	59-112
135-98-8	sec-Butylbenzene	50	47.0	94	65-112
98-06-6	tert-Butylbenzene	50	46.7	93	66-112
108-90-7	Chlorobenzene	50	48.1	96	72-113
75-00-3	Chloroethane	50	51.8	104	51-133
67-66-3	Chloroform	50	47.1	94	74-115
95-49-8	o-Chlorotoluene	50	47.0	94	70-113
106-43-4	p-Chlorotoluene	50	46.4	93	69-114
75-15-0	Carbon disulfide	50	41.4	83	44-112
56-23-5	Carbon tetrachloride	50	46.0	92	62-115
75-34-3	1,1-Dichloroethane	50	47.5	95	72-116
75-35-4	1,1-Dichloroethylene	50	48.5	97	59-122
563-58-6	1,1-Dichloropropene	50	45.4	91	61-111
96-12-8	1,2-Dibromo-3-chloropropane	50	46.3	93	61-121
106-93-4	1,2-Dibromoethane	50	45.2	90	74-114
107-06-2	1,2-Dichloroethane	50	46.7	93	73-109
78-87-5	1,2-Dichloropropane	50	45.1	90	73-111
142-28-9	1,3-Dichloropropane	50	46.9	94	72-112
594-20-7	2,2-Dichloropropane	50	46.6	93	63-118
124-48-1	Dibromochloromethane	50	45.6	91	74-115
75-71-8	Dichlorodifluoromethane	50	42.1	84	27-104
156-59-2	cis-1,2-Dichloroethylene	50	44.8	90	69-110
10061-01-5	cis-1,3-Dichloropropene	50	44.6	89	75-115
541-73-1	m-Dichlorobenzene	50	46.3	93	69-114
95-50-1	o-Dichlorobenzene	50	46.9	94	74-113
106-46-7	p-Dichlorobenzene	50	47.4	95	70-113
156-60-5	trans-1,2-Dichloroethylene	50	48.8	98	66-119
10061-02-6	trans-1,3-Dichloropropene	50	47.6	95	76-122
100-41-4	Ethylbenzene	50	47.5	95	60-119
591-78-6	2-Hexanone	250	233	93	61-131

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX178-BS	X004173.D	1	05/14/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
87-68-3	Hexachlorobutadiene	50	47.5	95	53-123
98-82-8	Isopropylbenzene	50	46.8	94	70-114
99-87-6	p-Isopropyltoluene	50	46.2	92	65-113
108-10-1	4-Methyl-2-pentanone	250	241	96	64-128
74-83-9	Methyl bromide	50	48.1	96	64-117
74-87-3	Methyl chloride	50	49.3	99	46-139
74-95-3	Methylene bromide	50	45.3	91	76-115
75-09-2	Methylene chloride	50	46.4	93	66-113
78-93-3	Methyl ethyl ketone	250	233	93	65-129
1634-04-4	Methyl Tert Butyl Ether	50	43.5	87	58-128
91-20-3	Naphthalene	50	51.2	102	63-127
103-65-1	n-Propylbenzene	50	46.9	94	58-115
100-42-5	Styrene	50	45.1	90	65-99
630-20-6	1,1,1,2-Tetrachloroethane	50	46.6	93	73-112
71-55-6	1,1,1-Trichloroethane	50	46.5	93	65-118
79-34-5	1,1,2,2-Tetrachloroethane	50	46.1	92	65-121
79-00-5	1,1,2-Trichloroethane	50	45.5	91	73-110
87-61-6	1,2,3-Trichlorobenzene	50	46.0	92	45-142
96-18-4	1,2,3-Trichloropropane	50	43.3	87	68-103
120-82-1	1,2,4-Trichlorobenzene	50	46.0	92	54-125
95-63-6	1,2,4-Trimethylbenzene	50	45.5	91	62-113
108-67-8	1,3,5-Trimethylbenzene	50	45.9	92	62-116
127-18-4	Tetrachloroethylene	50	46.1	92	62-119
108-88-3	Toluene	50	47.4	95	68-115
79-01-6	Trichloroethylene	50	44.7	89	67-113
75-69-4	Trichlorofluoromethane	50	45.1	90	57-113
75-01-4	Vinyl chloride	50	48.5	97	50-106
1330-20-7	Xylene (total)	150	145	97	61-115
	m,p-Xylene	100	97.1	97	60-115
95-47-6	o-Xylene	50	48.0	96	63-114

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	92%	70-121%
2037-26-5	Toluene-D8	98%	76-132%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX178-BS	X004173.D	1	05/14/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	96%	73-165%
17060-07-0	1,2-Dichloroethane-D4	89%	57-122%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY2172-BS	Y0032887.D	25	05/14/09	JL	n/a	n/a	VY2172

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	625	570	91	65-113
103-65-1	n-Propylbenzene	625	564	90	74-115

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	79-122%
17060-07-0	1,2-Dichloroethane-D4	96%	75-121%
2037-26-5	Toluene-D8	115%	87-119%
460-00-4	4-Bromofluorobenzene	103%	80-133%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY2173-BS	Y0032891.D	1	05/15/09	JL	n/a	n/a	VY2173

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-23

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
98-82-8	Isopropylbenzene	25	22.9	92	75-123
103-65-1	n-Propylbenzene	25	22.2	89	74-115

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	79-122%
17060-07-0	1,2-Dichloroethane-D4	98%	75-121%
2037-26-5	Toluene-D8	120%*	87-119%
460-00-4	4-Bromofluorobenzene	105%	80-133%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX179-BS	X004208.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	190	76	62-133
71-43-2	Benzene	50	42.9	86	70-114
108-86-1	Bromobenzene	50	46.1	92	73-112
74-97-5	Bromochloromethane	50	43.4	87	70-110
75-27-4	Bromodichloromethane	50	42.2	84	71-104
75-25-2	Bromoform	50	43.8	88	72-116
104-51-8	n-Butylbenzene	50	44.7	89	59-112
135-98-8	sec-Butylbenzene	50	45.9	92	65-112
98-06-6	tert-Butylbenzene	50	47.2	94	66-112
108-90-7	Chlorobenzene	50	45.7	91	72-113
75-00-3	Chloroethane	50	37.9	76	51-133
67-66-3	Chloroform	50	44.1	88	74-115
95-49-8	o-Chlorotoluene	50	46.8	94	70-113
106-43-4	p-Chlorotoluene	50	47.2	94	69-114
75-15-0	Carbon disulfide	50	36.6	73	44-112
56-23-5	Carbon tetrachloride	50	45.1	90	62-115
75-34-3	1,1-Dichloroethane	50	42.4	85	72-116
75-35-4	1,1-Dichloroethylene	50	46.3	93	59-122
563-58-6	1,1-Dichloropropene	50	44.6	89	61-111
96-12-8	1,2-Dibromo-3-chloropropane	50	47.2	94	61-121
106-93-4	1,2-Dibromoethane	50	45.3	91	74-114
107-06-2	1,2-Dichloroethane	50	44.5	89	73-109
78-87-5	1,2-Dichloropropane	50	42.2	84	73-111
142-28-9	1,3-Dichloropropane	50	43.8	88	72-112
594-20-7	2,2-Dichloropropane	50	44.8	90	63-118
124-48-1	Dibromochloromethane	50	44.6	89	74-115
75-71-8	Dichlorodifluoromethane	50	34.0	68	27-104
156-59-2	cis-1,2-Dichloroethylene	50	42.1	84	69-110
10061-01-5	cis-1,3-Dichloropropene	50	44.8	90	75-115
541-73-1	m-Dichlorobenzene	50	46.1	92	69-114
95-50-1	o-Dichlorobenzene	50	46.3	93	74-113
106-46-7	p-Dichlorobenzene	50	46.0	92	70-113
156-60-5	trans-1,2-Dichloroethylene	50	45.5	91	66-119
10061-02-6	trans-1,3-Dichloropropene	50	47.6	95	76-122
100-41-4	Ethylbenzene	50	44.9	90	60-119
591-78-6	2-Hexanone	250	201	80	61-131

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX179-BS	X004208.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
87-68-3	Hexachlorobutadiene	50	48.4	97	53-123
98-82-8	Isopropylbenzene	50	47.7	95	70-114
99-87-6	p-Isopropyltoluene	50	45.8	92	65-113
108-10-1	4-Methyl-2-pentanone	250	206	82	64-128
74-83-9	Methyl bromide	50	35.8	72	64-117
74-87-3	Methyl chloride	50	37.0	74	46-139
74-95-3	Methylene bromide	50	43.7	87	76-115
75-09-2	Methylene chloride	50	39.2	78	66-113
78-93-3	Methyl ethyl ketone	250	199	80	65-129
1634-04-4	Methyl Tert Butyl Ether	50	45.0	90	58-128
91-20-3	Naphthalene	50	53.7	107	63-127
103-65-1	n-Propylbenzene	50	46.5	93	58-115
100-42-5	Styrene	50	43.1	86	65-99
630-20-6	1,1,1,2-Tetrachloroethane	50	44.9	90	73-112
71-55-6	1,1,1-Trichloroethane	50	44.1	88	65-118
79-34-5	1,1,2,2-Tetrachloroethane	50	44.3	89	65-121
79-00-5	1,1,2-Trichloroethane	50	43.2	86	73-110
87-61-6	1,2,3-Trichlorobenzene	50	47.4	95	45-142
96-18-4	1,2,3-Trichloropropane	50	41.0	82	68-103
120-82-1	1,2,4-Trichlorobenzene	50	48.2	96	54-125
95-63-6	1,2,4-Trimethylbenzene	50	45.5	91	62-113
108-67-8	1,3,5-Trimethylbenzene	50	46.8	94	62-116
127-18-4	Tetrachloroethylene	50	46.3	93	62-119
108-88-3	Toluene	50	45.0	90	68-115
79-01-6	Trichloroethylene	50	45.0	90	67-113
75-69-4	Trichlorofluoromethane	50	34.6	69	57-113
75-01-4	Vinyl chloride	50	35.2	70	50-106
1330-20-7	Xylene (total)	150	136	91	61-115
	m,p-Xylene	100	90.1	90	60-115
95-47-6	o-Xylene	50	46.2	92	63-114

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	70-121%
2037-26-5	Toluene-D8	97%	76-132%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX179-BS	X004208.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	102%	73-165%
17060-07-0	1,2-Dichloroethane-D4	83%	57-122%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC27-BS	C0000639.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	115	92	62-124
71-43-2	Benzene	25	24.8	99	76-118
108-86-1	Bromobenzene	25	22.0	88	72-110
74-97-5	Bromochloromethane	25	21.1	84	69-110
75-27-4	Bromodichloromethane	25	20.6	82	68-107
75-25-2	Bromoform	25	20.0	80	64-103
104-51-8	n-Butylbenzene	25	21.9	88	74-114
135-98-8	sec-Butylbenzene	25	22.2	89	76-118
98-06-6	tert-Butylbenzene	25	26.0	104	72-116
108-90-7	Chlorobenzene	25	23.3	93	74-111
75-00-3	Chloroethane	25	28.4	114	75-135
67-66-3	Chloroform	25	22.9	92	75-117
95-49-8	o-Chlorotoluene	25	22.6	90	74-113
106-43-4	p-Chlorotoluene	25	24.9	100	72-114
75-15-0	Carbon disulfide	25	22.2	89	57-126
56-23-5	Carbon tetrachloride	25	26.3	105	75-125
75-34-3	1,1-Dichloroethane	25	24.4	98	76-121
75-35-4	1,1-Dichloroethylene	25	28.7	115	71-128
563-58-6	1,1-Dichloropropene	25	28.4	114	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	21.0	84	55-121
106-93-4	1,2-Dibromoethane	25	20.1	80	69-106
107-06-2	1,2-Dichloroethane	25	22.6	90	70-111
78-87-5	1,2-Dichloropropane	25	22.0	88	71-113
142-28-9	1,3-Dichloropropane	25	22.1	88	69-106
594-20-7	2,2-Dichloropropane	25	26.3	105	68-130
124-48-1	Dibromochloromethane	25	21.4	86	69-104
75-71-8	Dichlorodifluoromethane	25	30.8	123*	28-120
156-59-2	cis-1,2-Dichloroethylene	25	22.6	90	68-113
10061-01-5	cis-1,3-Dichloropropene	25	20.7	83	71-111
541-73-1	m-Dichlorobenzene	25	23.1	92	74-110
95-50-1	o-Dichlorobenzene	25	22.1	88	72-108
106-46-7	p-Dichlorobenzene	25	22.1	88	74-110
156-60-5	trans-1,2-Dichloroethylene	25	27.3	109	70-125
10061-02-6	trans-1,3-Dichloropropene	25	22.4	90	75-111
100-41-4	Ethylbenzene	25	22.9	92	75-112
591-78-6	2-Hexanone	125	97.8	78	60-113

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC27-BS	C0000639.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	23.8	95	72-123
98-82-8	Isopropylbenzene	25	22.9	92	75-123
99-87-6	p-Isopropyltoluene	25	21.7	87	76-116
108-10-1	4-Methyl-2-pentanone	125	98.8	79	63-115
74-83-9	Methyl bromide	25	24.6	98	59-132
74-87-3	Methyl chloride	25	25.2	101	56-150
74-95-3	Methylene bromide	25	21.6	86	68-114
75-09-2	Methylene chloride	25	20.1	80	70-113
78-93-3	Methyl ethyl ketone	125	110	88	62-117
1634-04-4	Methyl Tert Butyl Ether	25	19.9	80	65-113
91-20-3	Naphthalene	25	16.9	68	53-127
103-65-1	n-Propylbenzene	25	22.9	92	74-115
100-42-5	Styrene	25	19.8	79	66-100
630-20-6	1,1,1,2-Tetrachloroethane	25	22.5	90	72-108
71-55-6	1,1,1-Trichloroethane	25	25.2	101	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	20.8	83	67-110
79-00-5	1,1,2-Trichloroethane	25	20.7	83	69-107
87-61-6	1,2,3-Trichlorobenzene	25	17.4	70	51-128
96-18-4	1,2,3-Trichloropropane	25	19.5	78	55-116
120-82-1	1,2,4-Trichlorobenzene	25	19.0	76	63-114
95-63-6	1,2,4-Trimethylbenzene	25	21.4	86	73-111
108-67-8	1,3,5-Trimethylbenzene	25	21.8	87	74-115
127-18-4	Tetrachloroethylene	25	25.6	102	77-120
108-88-3	Toluene	25	23.5	94	77-114
79-01-6	Trichloroethylene	25	22.8	91	74-117
75-69-4	Trichlorofluoromethane	25	28.2	113	64-132
75-01-4	Vinyl chloride	25	27.9	112	64-121
1330-20-7	Xylene (total)	75	66.7	89	75-111
	m,p-Xylene	50	45.1	90	75-112
95-47-6	o-Xylene	25	21.6	86	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	79-122%
17060-07-0	1,2-Dichloroethane-D4	99%	75-121%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC27-BS	C0000639.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	117%	87-119%
460-00-4	4-Bromofluorobenzene	97%	80-133%

Blank Spike Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX180-BS	X004236.D	1	05/18/09	OM	n/a	n/a	VX180

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-18

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
103-65-1	n-Propylbenzene	50	47.6	95	58-115

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	70-121%
2037-26-5	Toluene-D8	110%	76-132%
460-00-4	4-Bromofluorobenzene	114%	73-165%
17060-07-0	1,2-Dichloroethane-D4	97%	57-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-22MS	Y0032885.D	25	05/14/09	JL	n/a	n/a	VY2172
T28959-22MSD	Y0032886.D	25	05/14/09	JL	n/a	n/a	VY2172
T28959-22	Y0032884.D	25	05/14/09	JL	n/a	n/a	VY2172

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22

CAS No.	Compound	T28959-22 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		625	508	81	569	91	11	65-113/13
103-65-1	n-Propylbenzene	169		625	711	87	677	81	5	74-115/12

CAS No.	Surrogate Recoveries	MS	MSD	T28959-22	Limits
1868-53-7	Dibromofluoromethane	105%	109%	112%	79-122%
17060-07-0	1,2-Dichloroethane-D4	100%	101%	100%	75-121%
2037-26-5	Toluene-D8	114%	118%	113%	87-119%
460-00-4	4-Bromofluorobenzene	101%	99%	102%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-8MS	X004189.D	1	05/15/09	OM	n/a	n/a	VX178
T28959-8MSD	X004190.D	1	05/15/09	OM	n/a	n/a	VX178
T28959-8 [a]	X004188.D	1	05/15/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Compound	T28959-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		18000	12300	68	11900	66	3	62-133/34
71-43-2	Benzene	ND		3600	2510	70	2440	68*	3	70-114/38
108-86-1	Bromobenzene	ND		3600	2890	80	2860	79	1	73-112/36
74-97-5	Bromochloromethane	ND		3600	2860	79	2830	79	1	70-110/34
75-27-4	Bromodichloromethane	ND		3600	2550	71	2740	76	7	71-104/35
75-25-2	Bromoform	ND		3600	2970	83	2980	83	0	72-116/34
104-51-8	n-Butylbenzene	1650		3600	3730	58*	3650	56*	2	59-112/40
135-98-8	sec-Butylbenzene	964		3600	3230	63*	3170	61*	2	65-112/38
98-06-6	tert-Butylbenzene	ND		3600	2790	78	2740	76	2	66-112/38
108-90-7	Chlorobenzene	ND		3600	2770	77	2720	76	2	72-113/37
75-00-3	Chloroethane	ND		3600	1520	42*	1520	42*	0	51-133/36
67-66-3	Chloroform	ND		3600	2570	71*	2520	70*	2	74-115/35
95-49-8	o-Chlorotoluene	ND		3600	2680	74	2610	73	3	70-113/38
106-43-4	p-Chlorotoluene	ND		3600	2700	75	2670	74	1	69-114/37
75-15-0	Carbon disulfide	ND		3600	2090	58	1980	55	5	44-112/39
56-23-5	Carbon tetrachloride	ND		3600	2420	67	2380	66	2	62-115/38
75-34-3	1,1-Dichloroethane	ND		3600	2460	68*	2340	65*	5	72-116/37
75-35-4	1,1-Dichloroethylene	ND		3600	2540	71	2400	67	6	59-122/38
563-58-6	1,1-Dichloropropene	ND		3600	2500	69	2430	68	3	61-111/38
96-12-8	1,2-Dibromo-3-chloropropane	ND		3600	3280	91	3270	91	0	61-121/40
106-93-4	1,2-Dibromoethane	ND		3600	3170	88	3200	89	1	74-114/33
107-06-2	1,2-Dichloroethane	ND		3600	2700	75	2690	75	0	73-109/33
78-87-5	1,2-Dichloropropane	ND		3600	2690	75	2640	73	2	73-111/35
142-28-9	1,3-Dichloropropane	ND		3600	2820	78	2810	78	0	72-112/33
594-20-7	2,2-Dichloropropane	ND		3600	2370	66	2300	64	3	63-118/37
124-48-1	Dibromochloromethane	ND		3600	2950	82	2940	82	0	74-115/34
75-71-8	Dichlorodifluoromethane	ND		3600	1510	42	1380	38	9	27-104/37
156-59-2	cis-1,2-Dichloroethylene	ND		3600	2600	72	2570	71	1	69-110/36
10061-01-5	cis-1,3-Dichloropropene	ND		3600	2810	78	2780	77	1	75-115/36
541-73-1	m-Dichlorobenzene	ND		3600	2710	75	2710	75	0	69-114/37
95-50-1	o-Dichlorobenzene	ND		3600	2850	79	2860	79	0	74-113/38
106-46-7	p-Dichlorobenzene	ND		3600	2660	74	2700	75	1	70-113/37
156-60-5	trans-1,2-Dichloroethylene	ND		3600	2520	70	2420	67	4	66-119/38
10061-02-6	trans-1,3-Dichloropropene	ND		3600	3060	85	3040	85	1	76-122/34
100-41-4	Ethylbenzene	347	J	3600	2580	62	2570	62	0	60-119/40
591-78-6	2-Hexanone	ND		18000	14300	79	14100	78	1	61-131/37

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-8MS	X004189.D	1	05/15/09	OM	n/a	n/a	VX178
T28959-8MSD	X004190.D	1	05/15/09	OM	n/a	n/a	VX178
T28959-8 [a]	X004188.D	1	05/15/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Compound	T28959-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND		3600	2800	78	2740	76	2	53-123/43
98-82-8	Isopropylbenzene	2160		3600	4540	66*	4450	64*	2	70-114/38
99-87-6	p-Isopropyltoluene	ND		3600	2660	74	2640	73	1	65-113/40
108-10-1	4-Methyl-2-pentanone	ND		18000	14000	78	14100	78	1	64-128/37
74-83-9	Methyl bromide	ND		3600	1140	32*	1260	35*	10	64-117/36
74-87-3	Methyl chloride	ND		3600	2040	57	1960	54	4	46-139/33
74-95-3	Methylene bromide	ND		3600	2810	78	2870	80	2	76-115/35
75-09-2	Methylene chloride	ND		3600	2230	62*	2140	59*	4	66-113/34
78-93-3	Methyl ethyl ketone	ND		18000	13400	74	13200	73	2	65-129/36
1634-04-4	Methyl Tert Butyl Ether	ND		3600	3090	86	3080	86	0	58-128/33
91-20-3	Naphthalene	2420		3600	6160	104	6380	110	4	63-127/36
103-65-1	n-Propylbenzene	3800		3600	6060	63	5880	58	3	58-115/40
100-42-5	Styrene	ND		3600	2660	74	2660	74	0	65-99/38
630-20-6	1,1,1,2-Tetrachloroethane	ND		3600	2790	78	2800	78	0	73-112/36
71-55-6	1,1,1-Trichloroethane	ND		3600	2450	68	2380	66	3	65-118/38
79-34-5	1,1,2,2-Tetrachloroethane	ND		3600	3050	85	2870	80	6	65-121/37
79-00-5	1,1,2-Trichloroethane	ND		3600	3370	94	3320	92	1	73-110/34
87-61-6	1,2,3-Trichlorobenzene	ND		3600	2940	82	3060	85	4	45-142/37
96-18-4	1,2,3-Trichloropropane	ND		3600	2990	83	3070	85	3	68-103/38
120-82-1	1,2,4-Trichlorobenzene	ND		3600	2860	79	3000	83	5	54-125/37
95-63-6	1,2,4-Trimethylbenzene	ND		3600	2680	74	2650	74	1	62-113/41
108-67-8	1,3,5-Trimethylbenzene	ND		3600	2710	75	2710	75	0	62-116/39
127-18-4	Tetrachloroethylene	ND		3600	2680	74	2620	73	2	62-119/40
108-88-3	Toluene	334	J	3600	2690	65*	2600	63*	3	68-115/38
79-01-6	Trichloroethylene	ND		3600	2780	77	2810	78	1	67-113/39
75-69-4	Trichlorofluoromethane	ND		3600	1550	43*	1490	41*	4	57-113/33
75-01-4	Vinyl chloride	ND		3600	1830	51	1770	49*	3	50-106/33
1330-20-7	Xylene (total)	ND		10800	7990	74	7840	73	2	61-115/39
	m,p-Xylene	ND		7200	5160	72	5050	70	2	60-115/40
95-47-6	o-Xylene	ND		3600	2820	78	2790	78	1	63-114/37

CAS No.	Surrogate Recoveries	MS	MSD	T28959-8	Limits
1868-53-7	Dibromofluoromethane	87%	86%	84%	70-121%
2037-26-5	Toluene-D8	98%	95%	94%	76-132%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-8MS	X004189.D	1	05/15/09	OM	n/a	n/a	VX178
T28959-8MSD	X004190.D	1	05/15/09	OM	n/a	n/a	VX178
T28959-8 [a]	X004188.D	1	05/15/09	OM	n/a	n/a	VX178

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-1, T28959-2, T28959-3, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-15, T28959-16, T28959-19

CAS No.	Surrogate Recoveries	MS	MSD	T28959-8	Limits
460-00-4	4-Bromofluorobenzene	109%	105%	105%	73-165%
17060-07-0	1,2-Dichloroethane-D4	76%	76%	75%	57-122%

(a) Elevated reporting limits due to matrix interference.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-23MS	Y0032895.D	25	05/15/09	JL	n/a	n/a	VY2173
T28959-23MSD	Y0032896.D	25	05/15/09	JL	n/a	n/a	VY2173
T28959-23	Y0032894.D	25	05/15/09	JL	n/a	n/a	VY2173

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-23

CAS No.	Compound	T28959-23 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
98-82-8	Isopropylbenzene	212		625	766	89	754	87	2	75-123/12
103-65-1	n-Propylbenzene	359		625	903	87	879	83	3	74-115/12

CAS No.	Surrogate Recoveries	MS	MSD	T28959-23	Limits
1868-53-7	Dibromofluoromethane	107%	108%	109%	79-122%
17060-07-0	1,2-Dichloroethane-D4	104%	96%	95%	75-121%
2037-26-5	Toluene-D8	114%	118%	121%*	87-119%
460-00-4	4-Bromofluorobenzene	103%	100%	108%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-6MS	X004220.D	1	05/15/09	OM	n/a	n/a	VX179
T28959-6MSD	X004221.D	1	05/15/09	OM	n/a	n/a	VX179
T28959-6 [a]	X004219.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Compound	T28959-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		17100	13300	78	10700	63	22	62-133/34
71-43-2	Benzene	ND		3420	2650	78	2490	73	6	70-114/38
108-86-1	Bromobenzene	ND		3420	3040	89	2910	85	4	73-112/36
74-97-5	Bromochloromethane	ND		3420	2920	86	2750	81	6	70-110/34
75-27-4	Bromodichloromethane	ND		3420	2680	78	2540	74	5	71-104/35
75-25-2	Bromoform	ND		3420	3080	90	2710	79	13	72-116/34
104-51-8	n-Butylbenzene	5220		3420	7340	62	7430	65	1	59-112/40
135-98-8	sec-Butylbenzene	2680		3420	5290	76	5300	77	0	65-112/38
98-06-6	tert-Butylbenzene	ND		3420	3590	105	3520	103	2	66-112/38
108-90-7	Chlorobenzene	ND		3420	3020	88	2900	85	4	72-113/37
75-00-3	Chloroethane	ND		3420	1910	56	1820	53	5	51-133/36
67-66-3	Chloroform	ND		3420	2740	80	2600	76	5	74-115/35
95-49-8	o-Chlorotoluene	ND		3420	2950	86	2880	84	2	70-113/38
106-43-4	p-Chlorotoluene	ND		3420	2940	86	2900	85	1	69-114/37
75-15-0	Carbon disulfide	ND		3420	2250	66	2160	63	4	44-112/39
56-23-5	Carbon tetrachloride	ND		3420	2910	85	2790	82	4	62-115/38
75-34-3	1,1-Dichloroethane	ND		3420	2590	76	2460	72	5	72-116/37
75-35-4	1,1-Dichloroethylene	ND		3420	2770	81	2680	78	3	59-122/38
563-58-6	1,1-Dichloropropene	ND		3420	2850	83	2750	81	4	61-111/38
96-12-8	1,2-Dibromo-3-chloropropane	ND		3420	3300	97	2730	80	19	61-121/40
106-93-4	1,2-Dibromoethane	ND		3420	3170	93	2870	84	10	74-114/33
107-06-2	1,2-Dichloroethane	ND		3420	2810	82	2540	74	10	73-109/33
78-87-5	1,2-Dichloropropane	ND		3420	2710	79	2530	74	7	73-111/35
142-28-9	1,3-Dichloropropane	ND		3420	2830	83	2530	74	11	72-112/33
594-20-7	2,2-Dichloropropane	ND		3420	2720	80	2600	76	5	63-118/37
124-48-1	Dibromochloromethane	ND		3420	3100	91	2850	83	8	74-115/34
75-71-8	Dichlorodifluoromethane	ND		3420	2110	62	1940	57	8	27-104/37
156-59-2	cis-1,2-Dichloroethylene	ND		3420	2740	80	2620	77	4	69-110/36
10061-01-5	cis-1,3-Dichloropropene	ND		3420	2870	84	2690	79	6	75-115/36
541-73-1	m-Dichlorobenzene	ND		3420	3000	88	2940	86	2	69-114/37
95-50-1	o-Dichlorobenzene	ND		3420	3050	89	2910	85	5	74-113/38
106-46-7	p-Dichlorobenzene	ND		3420	2940	86	2860	84	3	70-113/37
156-60-5	trans-1,2-Dichloroethylene	ND		3420	2730	80	2630	77	4	66-119/38
10061-02-6	trans-1,3-Dichloropropene	ND		3420	3100	91	2860	84	8	76-122/34
100-41-4	Ethylbenzene	ND		3420	2910	85	2810	82	3	60-119/40
591-78-6	2-Hexanone	ND		17100	14100	83	11800	69	18	61-131/37

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-6MS	X004220.D	1	05/15/09	OM	n/a	n/a	VX179
T28959-6MSD	X004221.D	1	05/15/09	OM	n/a	n/a	VX179
T28959-6 [a]	X004219.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Compound	T28959-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND		3420	3030	89	2870	84	5	53-123/43
98-82-8	Isopropylbenzene	5620		3420	8060	71	8200	76	2	70-114/38
99-87-6	p-Isopropyltoluene	ND		3420	3150	92	3080	90	2	65-113/40
108-10-1	4-Methyl-2-pentanone	ND		17100	13400	78	11300	66	17	64-128/37
74-83-9	Methyl bromide	ND		3420	1490	44*	1400	41*	6	64-117/36
74-87-3	Methyl chloride	ND		3420	2220	65	2160	63	3	46-139/33
74-95-3	Methylene bromide	ND		3420	2880	84	2580	76	11	76-115/35
75-09-2	Methylene chloride	ND		3420	2220	65*	2080	61*	7	66-113/34
78-93-3	Methyl ethyl ketone	ND		17100	13400	78	11100	65	19	65-129/36
1634-04-4	Methyl Tert Butyl Ether	ND		3420	3140	92	2810	82	11	58-128/33
91-20-3	Naphthalene	12500		3420	16200	108	15200	79	6	63-127/36
103-65-1	n-Propylbenzene	11700		3420	13400	50* [b]	13800	61	3	58-115/40
100-42-5	Styrene	ND		3420	2910	85	2780	81	5	65-99/38
630-20-6	1,1,1,2-Tetrachloroethane	ND		3420	3080	90	2880	84	7	73-112/36
71-55-6	1,1,1-Trichloroethane	ND		3420	2810	82	2690	79	4	65-118/38
79-34-5	1,1,2,2-Tetrachloroethane	ND		3420	2980	87	2600	76	14	65-121/37
79-00-5	1,1,2-Trichloroethane	ND		3420	5690	167*	6040	177*	6	73-110/34
87-61-6	1,2,3-Trichlorobenzene	ND		3420	3050	89	2860	84	6	45-142/37
96-18-4	1,2,3-Trichloropropane	ND		3420	3740	110*	3310	97	12	68-103/38
120-82-1	1,2,4-Trichlorobenzene	ND		3420	3140	92	3040	89	3	54-125/37
95-63-6	1,2,4-Trimethylbenzene	ND		3420	3040	89	2960	87	3	62-113/41
108-67-8	1,3,5-Trimethylbenzene	ND		3420	3130	92	3020	88	4	62-116/39
127-18-4	Tetrachloroethylene	ND		3420	3150	92	3050	89	3	62-119/40
108-88-3	Toluene	ND		3420	2910	85	2790	82	4	68-115/38
79-01-6	Trichloroethylene	ND		3420	3160	93	2980	87	6	67-113/39
75-69-4	Trichlorofluoromethane	ND		3420	1900	56*	1840	54*	3	57-113/33
75-01-4	Vinyl chloride	ND		3420	2090	61	2020	59	3	50-106/33
1330-20-7	Xylene (total)	ND		10200	8980	88	8620	84	4	61-115/39
	m,p-Xylene	ND		6830	5840	86	5630	82	4	60-115/40
95-47-6	o-Xylene	ND		3420	3140	92	2990	88	5	63-114/37

CAS No.	Surrogate Recoveries	MS	MSD	T28959-6	Limits
1868-53-7	Dibromofluoromethane	87%	81%	82%	70-121%
2037-26-5	Toluene-D8	97%	92%	93%	76-132%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T28959-6MS	X004220.D	1	05/15/09	OM	n/a	n/a	VX179
T28959-6MSD	X004221.D	1	05/15/09	OM	n/a	n/a	VX179
T28959-6 [a]	X004219.D	1	05/15/09	OM	n/a	n/a	VX179

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-4, T28959-5, T28959-6, T28959-14, T28959-17, T28959-18, T28959-20, T28959-24

CAS No.	Surrogate Recoveries	MS	MSD	T28959-6	Limits
460-00-4	4-Bromofluorobenzene	119%	114%	112%	73-165%
17060-07-0	1,2-Dichloroethane-D4	80%	73%	73%	57-122%

(a) Elevated reporting limits due to matrix interference.
(b) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T29107-1MS	C0000643.D	1	05/18/09	RR	n/a	n/a	VC27
T29107-1MSD	C0000644.D	1	05/18/09	RR	n/a	n/a	VC27
T29107-1	C0000642.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Compound	T29107-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	74.1		125	183	87	192	94	5	62-124/21
71-43-2	Benzene	2.0 U		25	26.3	105	25.4	102	3	76-118/16
108-86-1	Bromobenzene	2.0 U		25	21.9	88	21.7	87	1	72-110/12
74-97-5	Bromochloromethane	2.0 U		25	22.4	90	21.7	87	3	69-110/12
75-27-4	Bromodichloromethane	2.0 U		25	21.8	87	21.4	86	2	68-107/12
75-25-2	Bromoform	2.0 U		25	19.4	78	20.1	80	4	64-103/14
104-51-8	n-Butylbenzene	2.0 U		25	23.1	92	21.9	88	5	74-114/12
135-98-8	sec-Butylbenzene	2.0 U		25	24.0	96	23.2	93	3	76-118/12
98-06-6	tert-Butylbenzene	2.0 U		25	28.1	112	26.5	106	6	72-116/14
108-90-7	Chlorobenzene	2.0 U		25	23.7	95	23.0	92	3	74-111/11
75-00-3	Chloroethane	2.0 U		25	27.7	111	26.8	107	3	75-135/15
67-66-3	Chloroform	2.0 U		25	24.5	98	23.4	94	5	75-117/12
95-49-8	o-Chlorotoluene	2.0 U		25	22.8	91	22.0	88	4	74-113/12
106-43-4	p-Chlorotoluene	2.0 U		25	25.5	102	24.8	99	3	72-114/12
75-15-0	Carbon disulfide	2.0 U		25	23.3	93	22.5	90	3	57-126/13
56-23-5	Carbon tetrachloride	2.0 U		25	27.8	111	25.9	104	7	75-125/12
75-34-3	1,1-Dichloroethane	0.62	J	25	26.6	104	25.2	98	5	76-121/13
75-35-4	1,1-Dichloroethylene	1.6	J	25	31.0	118	29.5	112	5	71-128/19
563-58-6	1,1-Dichloropropene	2.0 U		25	28.5	114	27.4	110	4	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		25	18.7	75	20.4	82	9	55-121/33
106-93-4	1,2-Dibromoethane	2.0 U		25	20.6	82	20.6	82	0	69-106/13
107-06-2	1,2-Dichloroethane	2.0 U		25	23.1	92	22.5	90	3	70-111/14
78-87-5	1,2-Dichloropropane	2.0 U		25	23.5	94	23.4	94	0	71-113/12
142-28-9	1,3-Dichloropropane	2.0 U		25	22.1	88	22.0	88	0	69-106/12
594-20-7	2,2-Dichloropropane	2.0 U		25	28.0	112	25.7	103	9	68-130/14
124-48-1	Dibromochloromethane	2.0 U		25	21.7	87	21.0	84	3	69-104/12
75-71-8	Dichlorodifluoromethane	2.0 U		25	28.3	113	28.8	115	2	28-120/21
156-59-2	cis-1,2-Dichloroethylene	2.0 U		25	24.5	98	23.3	93	5	68-113/13
10061-01-5	cis-1,3-Dichloropropene	2.0 U		25	20.8	83	20.6	82	1	71-111/12
541-73-1	m-Dichlorobenzene	2.0 U		25	24.5	98	23.6	94	4	74-110/12
95-50-1	o-Dichlorobenzene	2.0 U		25	23.6	94	22.8	91	3	72-108/12
106-46-7	p-Dichlorobenzene	2.0 U		25	22.8	91	22.1	88	3	74-110/12
156-60-5	trans-1,2-Dichloroethylene	2.0 U		25	28.3	113	27.5	110	3	70-125/14
10061-02-6	trans-1,3-Dichloropropene	2.0 U		25	22.0	88	21.9	88	0	75-111/12
100-41-4	Ethylbenzene	2.0 U		25	23.6	94	22.6	90	4	75-112/12
591-78-6	2-Hexanone	10 U		125	93.2	75	96.6	77	4	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T29107-1MS	C0000643.D	1	05/18/09	RR	n/a	n/a	VC27
T29107-1MSD	C0000644.D	1	05/18/09	RR	n/a	n/a	VC27
T29107-1	C0000642.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Compound	T29107-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	2.0 U		25	22.9	92	23.1	92	1	72-123/17
98-82-8	Isopropylbenzene	2.0 U		25	23.2	93	22.5	90	3	75-123/12
99-87-6	p-Isopropyltoluene	2.0 U		25	24.4	98	23.6	94	3	76-116/12
108-10-1	4-Methyl-2-pentanone	10 U		125	96.0	77	99.3	79	3	63-115/21
74-83-9	Methyl bromide	2.0 U		25	24.5	98	23.8	95	3	59-132/15
74-87-3	Methyl chloride	2.0 U		25	26.0	104	26.2	105	1	56-150/17
74-95-3	Methylene bromide	2.0 U		25	21.6	86	21.6	86	0	68-114/13
75-09-2	Methylene chloride	5.0 U		25	21.2	85	20.8	83	2	70-113/13
78-93-3	Methyl ethyl ketone	10 U		125	101	81	106	85	5	62-117/21
1634-04-4	Methyl Tert Butyl Ether	2.0 U		25	19.3	77	20.2	81	5	65-113/13
91-20-3	Naphthalene	5.0 U		25	17.1	68	17.9	72	5	53-127/34
103-65-1	n-Propylbenzene	2.0 U		25	22.9	92	22.3	89	3	74-115/12
100-42-5	Styrene	2.0 U		25	20.9	84	20.6	82	1	66-100/11
630-20-6	1,1,1,2-Tetrachloroethane	2.0 U		25	23.3	93	21.9	88	6	72-108/11
71-55-6	1,1,1-Trichloroethane	2.0 U		25	27.5	110	25.7	103	7	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U		25	18.5	74	19.6	78	6	67-110/20
79-00-5	1,1,2-Trichloroethane	2.0 U		25	22.1	88	21.6	86	2	69-107/14
87-61-6	1,2,3-Trichlorobenzene	2.0 U		25	16.7	67	17.9	72	7	51-128/31
96-18-4	1,2,3-Trichloropropane	2.0 U		25	17.3	69	18.4	74	6	55-116/27
120-82-1	1,2,4-Trichlorobenzene	2.0 U		25	18.8	75	19.3	77	3	63-114/21
95-63-6	1,2,4-Trimethylbenzene	2.0 U		25	23.6	94	23.0	92	3	73-111/13
108-67-8	1,3,5-Trimethylbenzene	2.0 U		25	21.7	87	21.5	86	1	74-115/12
127-18-4	Tetrachloroethylene	2.0 U		25	26.8	107	25.1	100	7	77-120/13
108-88-3	Toluene	2.0 U		25	24.9	100	23.8	95	5	77-114/12
79-01-6	Trichloroethylene	2.0 U		25	24.8	99	23.9	96	4	74-117/12
75-69-4	Trichlorofluoromethane	2.0 U		25	26.7	107	24.7	99	8	64-132/18
75-01-4	Vinyl chloride	2.0 U		25	28.2	113	27.5	110	3	64-121/19
1330-20-7	Xylene (total)	6.0 U		75	72.2	96	69.2	92	4	75-111/12
	m,p-Xylene	4.0 U		50	49.1	98	46.6	93	5	75-112/12
95-47-6	o-Xylene	2.0 U		25	23.1	92	22.6	90	2	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T29107-1	Limits
1868-53-7	Dibromofluoromethane	103%	101%	106%	79-122%
17060-07-0	1,2-Dichloroethane-D4	98%	96%	98%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T29107-1MS	C0000643.D	1	05/18/09	RR	n/a	n/a	VC27
T29107-1MSD	C0000644.D	1	05/18/09	RR	n/a	n/a	VC27
T29107-1	C0000642.D	1	05/18/09	RR	n/a	n/a	VC27

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-21, T28959-22, T28959-23

CAS No.	Surrogate Recoveries	MS	MSD	T29107-1	Limits
2037-26-5	Toluene-D8	115%	111%	111%	87-119%
460-00-4	4-Bromofluorobenzene	89%	90%	88%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T29141-6MS	X004254.D	1	05/18/09	OM	n/a	n/a	VX180
T29141-6MSD	X004255.D	1	05/18/09	OM	n/a	n/a	VX180
T29141-6	X004253.D	1	05/18/09	OM	n/a	n/a	VX180

The QC reported here applies to the following samples: **Method:** SW846 8260B

T28959-18

CAS No.	Compound	T29141-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
103-65-1	n-Propylbenzene	ND		4510	3830	85	3210	71	18	58-115/40

CAS No.	Surrogate Recoveries	MS	MSD	T29141-6	Limits
1868-53-7	Dibromofluoromethane	99%	100%	105%	70-121%
2037-26-5	Toluene-D8	105%	105%	102%	76-132%
460-00-4	4-Bromofluorobenzene	114%	114%	112%	73-165%
17060-07-0	1,2-Dichloroethane-D4	90%	90%	107%	57-122%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12059-MB	IF189453.D	1	05/15/09	SS	05/14/09	OP12059	GIF813

The QC reported here applies to the following samples: **Method:** TNRCC 1005

T28959-21, T28959-22, T28959-23

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	2.5	0.66	mg/l	
	TPH (> C12-C28)	ND	2.5	0.31	mg/l	
	TPH (> C28-C35)	ND	2.5	0.31	mg/l	
	TPH (C6-C35)	ND	2.5	0.31	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	106%	70-130%
98-08-8	aaa-Trifluorotoluene	104%	70-130%

Method Blank Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12063-MB	LL023126.D	1	05/15/09	SS	05/14/09	OP12063	GLB316

The QC reported here applies to the following samples: **Method:** TNRCC 1005

T28959-1, T28959-2, T28959-3, T28959-4, T28959-5, T28959-6, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-14, T28959-15, T28959-16, T28959-17, T28959-18, T28959-19, T28959-20

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	25	6.9	mg/kg	
	TPH (> C12-C28)	ND	25	6.6	mg/kg	
	TPH (> C28-C35)	ND	25	6.6	mg/kg	
	TPH (C6-C35)	ND	25	6.6	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	89%	70-130%
98-08-8	aaa-Trifluorotoluene	88%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12059-BS	IF189454.D	1	05/15/09	SS	05/14/09	OP12059	GIF813
OP12059-BSD	IF189456.D	1	05/15/09	SS	05/14/09	OP12059	GIF813

The QC reported here applies to the following samples: **Method:** TNRCC 1005

T28959-21, T28959-22, T28959-23

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	49.8	40.7	82	40.6	82	0	75-125/25
	TPH (> C12-C28)	49.8	43.4	87	49.0	99	12	75-125/25
	TPH (C6-C35)		84.1		89.6		6	75-125/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	99%	110%	70-130%
98-08-8	aaa-Trifluorotoluene	94%	91%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12063-BS	LL023127.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
OP12063-BSD	LL023128.D	1	05/15/09	SS	05/14/09	OP12063	GLB316

The QC reported here applies to the following samples: **Method:** TNRCC 1005

T28959-1, T28959-2, T28959-3, T28959-4, T28959-5, T28959-6, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-14, T28959-15, T28959-16, T28959-17, T28959-18, T28959-19, T28959-20

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	247	267	108	233	94	14	75-125/25
	TPH (> C12-C28)	247	219	89	254	103	15	75-125/25
	TPH (C6-C35)		486		488		0	75-125/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	86%	93%	70-130%
98-08-8	aaa-Trifluorotoluene	98%	91%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12059-MS	IF189457.D	1	05/15/09	SS	05/14/09	OP12059	GIF813
OP12059-MSD	IF189458.D	1	05/15/09	SS	05/14/09	OP12059	GIF813
T28939-1	IF189460.D	1	05/15/09	SS	05/14/09	OP12059	GIF813

The QC reported here applies to the following samples: **Method:** TNRCC 1005

T28959-21, T28959-22, T28959-23

CAS No.	Compound	T28939-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	ND		49.7	45.7	92	39.9	80	14	75-125/25
	TPH (> C12-C28)	ND		49.7	52.3	105	47.4	95	10	75-125/25
	TPH (C6-C35)	ND			98.0		87.3		12	75-125/25

CAS No.	Surrogate Recoveries	MS	MSD	T28939-1	Limits
84-15-1	o-Terphenyl	112%	104%	106%	70-130%
98-08-8	aaa-Trifluorotoluene	104%	88%	99%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12063-MS	LL023129.D	1	05/15/09	SS	05/14/09	OP12063	GLF316
OP12063-MSD	LL023130.D	1	05/15/09	SS	05/14/09	OP12063	GLB316
T28959-1	LL023131.D	1	05/15/09	SS	05/14/09	OP12063	GLF316

The QC reported here applies to the following samples: **Method:** TNRCC 1005

T28959-1, T28959-2, T28959-3, T28959-4, T28959-5, T28959-6, T28959-7, T28959-8, T28959-9, T28959-10, T28959-11, T28959-12, T28959-13, T28959-14, T28959-15, T28959-16, T28959-17, T28959-18, T28959-19, T28959-20

CAS No.	Compound	T28959-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	32.1		309	342	100	336	98	2	75-125/25
	TPH (> C12-C28)	33.9		309	328	95	352	103	7	75-125/25
	TPH (C6-C35)	66.0			671		688		3	75-125/25

CAS No.	Surrogate Recoveries	MS	MSD	T28959-1	Limits
84-15-1	o-Terphenyl	90%	96%	88%	70-130%
98-08-8	aaa-Trifluorotoluene	97%	88%	91%	70-130%

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/26/09

Technical Report for

ENSAFE

COE Brownsville, Texas/0888807792

Accutest Job Number: T28959R

Sampling Dates: 05/12/09 - 05/13/09

Report to:

ENSAFE

bjackson@ensafe.com
khill@ensafe.com; jrathbone@ensafe.com
ATTN: Jim Rathbone

Total number of pages in report: **20**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

ENSAFE

Job No: T28959R

COE Brownsville, Texas/0888807792

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
T28959-6R	05/12/09	09:45	BJ	05/14/09	SO	Soil	USBRSSB02-9
T28959-23R	05/13/09	08:00	BJ	05/14/09	AQ	Ground Water	USBRGTW03-1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRSSB02-9		
Lab Sample ID:	T28959-6R	**Date Sampled:**	05/12/09
Matrix:	SO - Soil	**Date Received:**	05/14/09
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	80.0
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P03814.D	1	05/21/09	SC	05/21/09	OP12099	EP192
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.107	0.20	0.049	mg/kg	J
208-96-8	Acenaphthylene	ND	0.20	0.055	mg/kg	
120-12-7	Anthracene	ND	0.20	0.066	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.20	0.076	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.20	0.066	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.086	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	0.11	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.20	0.094	mg/kg	
218-01-9	Chrysene	ND	0.20	0.067	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.071	mg/kg	
206-44-0	Fluoranthene	ND	0.20	0.092	mg/kg	
86-73-7	Fluorene	0.281	0.20	0.062	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	0.079	mg/kg	
91-57-6	2-Methylnaphthalene	0.559	0.20	0.054	mg/kg	
91-20-3	Naphthalene	0.283	0.20	0.049	mg/kg	
85-01-8	Phenanthrene	0.670	0.20	0.076	mg/kg	
129-00-0	Pyrene	0.127	0.20	0.099	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		26-124%
4165-62-2	Phenol-d5	52%		19-106%
118-79-6	2,4,6-Tribromophenol	74%		18-129%
4165-60-0	Nitrobenzene-d5	56%		18-104%
321-60-8	2-Fluorobiphenyl	58%		21-114%
1718-51-0	Terphenyl-d14	72%		24-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW03-1		
Lab Sample ID:	T28959-23R	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	COE Brownsville, Texas/0888807792		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H33200.D	1	05/20/09	SC	05/19/09	OP12088	EH1809
Run #2	H33202.D	20	05/20/09	SC	05/19/09	OP12088	EH1809

	Initial Volume	Final Volume
Run #1	675 ml	1.0 ml
Run #2	675 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.0034	0.00030	0.000097	mg/l	
208-96-8	Acenaphthylene	ND	0.00030	0.000080	mg/l	
120-12-7	Anthracene	ND	0.00030	0.000054	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00030	0.000082	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00030	0.00015	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00030	0.000082	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.00030	0.000087	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00030	0.000068	mg/l	
218-01-9	Chrysene	ND	0.00030	0.000087	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00030	0.000047	mg/l	
206-44-0	Fluoranthene	ND	0.00030	0.00011	mg/l	
86-73-7	Fluorene	0.0040	0.00030	0.000091	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00030	0.00016	mg/l	
91-57-6	2-Methylnaphthalene	0.0714 [a]	0.0059	0.0019	mg/l	
91-20-3	Naphthalene	0.138 [a]	0.0059	0.0031	mg/l	
85-01-8	Phenanthrene	0.0025	0.00030	0.00012	mg/l	
129-00-0	Pyrene	ND	0.00030	0.00012	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%	48%	17-131%
321-60-8	2-Fluorobiphenyl	71%	38%	15-137%
1718-51-0	Terphenyl-d14	42%	35%	10-160%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

Page 1 of 3

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: Bjackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis,TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	EnCore	NaHSO4	MeOH	None	VOA (8260) + MTBE	TPHTX1005 / (*) PAH	PAH (8270)	Sulfate, TDS, Chloride	LAB USE ONLY
1	USBRSSB01-8	5/12/09	1040	SO	2								X	✓	✓			
2	USBRSSB01-10	5/12/09	1040	SO	2								X	✓	✓			
3	USBRSSB03-8	5/12/09	~~1255~~ 1130	SO	2								X	✓	✓			
4	USBRSSB03-10	5/12/09	~~1255~~ 1130	SO	2								X	✓	✓			
5	USBRSSB02-6	5/12/09	0945	SO	2								X	✓	✓			
6	USBRSSB02-9	5/12/09	0945	SO	2								X	✓	✓			
7	USBRSSB05-8	5/12/09	1235	SO	2								X	✓	✓			
8	USBRSSB05-10	5/12/09	1235	SO	2								X	✓	✓			
9	USBRSSB08-12	5/12/09	1345	SO	2								X	✓	✓			
10	USBRSSB08-14	5/12/09	1345	SO	2								X	✓	✓			

Turnaround Time (Calendar Days)

- 10 Day STANDARD
- 7 Day RUSH
- 4 Day RUSH
- XX 3 Day EMERGENCY
- 2 Day EMERGENCY
- 1 Day EMERGENCY
- Other

Approved By:/ Date:

RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- Commercial "A"
- X Commercial "B"
- Reduced Tier 1
- Full Data Package
- State Forms
- EDD Format
- TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) Analysis
(*) Analyze Highest TPH Concentration For Both Soil and Groundwater For PAH.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	5/13/09 0943	1	2	5-14-9	2
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 2.0

CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 2 of 3

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: BJackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis, TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	VOA (8260) + MTBE	TPHTX1005 / (*) PAH	PAH (8270)	Sulfate, TDS, Chloride	LAB USE ONLY
11	USBRSSB07-8	5/12/09	1425	SO	2								X	✓	✓			
12	USBRSSB07-10	5/12/09	1425	SO	2								X	✓	✓			
13	USBRSSB04-8	5/12/09	1525	SO	2								X	✓	✓			
14	USBRSSB04-10	5/12/09	1525	SO	2								X	✓	✓			
15	USBRSSB06-8	5/12/09	1610	SO	2								X	✓	✓			
16	USBRSSB06-14	5/12/09	1610	SO	2								X	✓	✓			
17	USBRSSB09-8	5/12/09	1715	SO	2								X	✓	✓			
18	USBRSSB09-10	5/12/09	1715	SO	2								X	✓	✓			
19	USBRSSB10-8	5/12/09	1750	SO	2								X	✓	✓			
20	USBRSSB10-10	5/12/09	1750	SO	2								X	✓	✓			

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:
RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) Analysis.
(*) Analyze Highest TPH Concentration For Both Soil And Groundwater For PAH.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/13/09 0943	1	2 [signature]	5/14 9:20	2 [signature]
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 2.0

T28959R: Chain of Custody
Page 2 of 7

CHAIN OF CUSTODY

Page 3 of 3

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: BJackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis, TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	VOA (8260) + MTBE	TPHTX1005 (*) PAH	PAH (8270)	Sulfate, TDS, Chloride *	LAB USE ONLY
21	USBRGTW01-1	5/13/09	0720	GW	7	6							1	✓	✓			
22	USBRGTW02-[redacted]1	5/13/09	0757	GW	7	6							1	✓	✓		✓	
23	USBRGTW03-1	5/13/09	0800	GW	7	6							1	✓	✓			
24-26	TRIP BLANK	5/12/09	0700	WQ	3	3								✓				

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:
RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) ANALYSIS.
(*) Analyze HIGHEST TPH Concentration FOR Both SOIL AND GROUNDWATER FOR PAH.
(*) USE PAH Container to Analyze Wet chem Parameters
Ensafe to contact lab.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/13/09-0943	1	2 [signature]	5-14-9 930	2 [signature]
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 2.0

3.1 3

SAMPLE INSPECTION FORM

Accutest Job Number: T28959 Client: Enscafe Date/Time Received: 5-14-9

# of Coolers Received: 3 Thermometer #: IR-1 Temperature Adjustment Factor: -0.4

Cooler Temps: #1: 3.4 #2: 2.4 #3: 2.0°C #4: _____ #5: _____ #6: _____ #7: _____ #8: _____

Method of Delivery: (FEDEX) UPS Accutest Courier Greyhound Delivery Other

Airbill Numbers: _____

COOLER INFORMATION

- [ ] Custody seal missing or not intact
- [ ] Temperature criteria not met
- [ ] Wet ice received in cooler

CHAIN OF CUSTODY

- [ ] Chain of Custody not received
- [ ] Sample D/T unclear or missing
- [ ] Analyses unclear or missing
- [ ] COC not properly executed

SAMPLE INFORMATION

- [ ] Sample containers received broken
- [ ] VOC vials have headspace
- [ ] Sample labels missing or illegible
- [ ] ID on COC does not match label(s)
- [ ] D/T on COC does not match label(s)
- [ ] Sample/Bottles rcvd but no analysis on COC
- [ ] Sample listed on COC, but not received
- [ ] Bottles missing for requested analysis
- [ ] Insufficient volume for analysis
- [ ] Sample received improperly preserved

TRIP BLANK INFORMATION

- [ ] Trip Blank on COC but not received
- [ ] Trip Blank received but not on COC
- [ ] Trip Blank not intact
- [ ] Received Water Trip Blank
- [ ] Received Soil TB

Number of Encores? _____
Number of 5035 kits? _____
Number of lab-filtered metals? _____

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: [signature] 5-14-9

INFORMATION AND SAMPLE LABELING VERIFIED BY: [signature]

CORRECTIVE ACTIONS

Client Representative Notified: _____ **Date:** _____

By Accutest Representative: _____ **Via:** Phone Email

Client Instructions:

SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe Inc. INITIALS: E c

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
	1	US BRSS B01-8	5-12-9 1010	S	40Z	1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	1	01-8	1010			2	VR	1 2 3 4 5 6 7 8	<2	>12
	2	01-10	1010			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	2	01-10	1010			2	VR	1 2 3 4 5 6 7 8	<2	>12
	3	03-8	1130			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	3	03-8				2	VR	1 2 3 4 5 6 7 8	<2	>12
	4	03-10				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	4	03-10				2	VR	1 2 3 4 5 6 7 8	<2	>12
	5	02-6	945			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	5	02-6				2	VR	1 2 3 4 5 6 7 8	<2	>12
	6	02-9				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	6	02-9				2	VR	1 2 3 4 5 6 7 8	<2	>12
	7	05-8	1235			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	7	05-8				2	VR	1 2 3 4 5 6 7 8	<2	>12
	8	05-10				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	8	05-10				2	VR	1 2 3 4 5 6 7 8	<2	>12
	9	03-12	1345			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	9	03-12				2	VR	1 2 3 4 5 6 7 8	<2	>12
	10	03-14				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	10	03-14				2	VR	1 2 3 4 5 6 7 8	<2	>12
	11	07-8	1445			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	11	07-8				2	VR	1 2 3 4 5 6 7 8	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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T28959R: Chain of Custody

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SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe INITIALS: E C

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
	12	USBRSS B07-10	5-12-9 1425	S	4oz	1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	12	07-10	"			2	VR	1 2 3 4 5 6 7 8	<2 >12
	13	04-8	1525			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	13	04-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	14	04-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	14	04-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	15	06-8	1610			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	15	06-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	16	06-14				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	16	06-14				2	VR	1 2 3 4 5 6 7 8	<2 >12
	17	09-8	1715			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	17	09-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	18	09-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	18	09-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	19	10-8	1750			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	19	10-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	20	10-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	20	10-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	21	USBRGTW 01-1	5-13-9 720	W	1000ml	1	1-II	1 2 3 4 5 6 7 8	<2 >12
					4am	2-4	"	1 2 3 4 5 6 7 8	<2 >12
					"	5-7	VR	1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

T28959R: Chain of Custody
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SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe INITIALS: SC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
	22	USBRG TW02-1	5-13-9 757	W	1000ml	1	II	1	<2	>12
					40ml	2-4	"	1	<2	>12
						5-7	VR	1	<2	>12
	23	03-1	0800		1000ml	1	II	1	<2	>12
					40	2-4	"	1	<2	>12
					"	5-7	VR	1	<2	>12
1	24	Trip Blank	—	—	40ml	1-2	M	1	<2	>12
2	25	"	—	—				1	<2	>12
3	26	"	—	—				1	<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12

SC 5-14-9

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

3.1

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T28959R: Chain of Custody

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GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T28959R
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12099-MB	P03812.D	1	05/21/09	SC	05/21/09	OP12099	EP192

The QC reported here applies to the following samples: **Method:** SW846 8270C

T28959-6R

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	170	40	ug/kg	
208-96-8	Acenaphthylene	ND	170	45	ug/kg	
120-12-7	Anthracene	ND	170	54	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	62	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	54	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	92	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	77	ug/kg	
218-01-9	Chrysene	ND	170	55	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	58	ug/kg	
206-44-0	Fluoranthene	ND	170	75	ug/kg	
86-73-7	Fluorene	ND	170	51	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	44	ug/kg	
91-20-3	Naphthalene	ND	170	40	ug/kg	
85-01-8	Phenanthrene	ND	170	62	ug/kg	
129-00-0	Pyrene	ND	170	81	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	72%	26-124%
4165-62-2	Phenol-d5	79%	19-106%
118-79-6	2,4,6-Tribromophenol	79%	18-129%
4165-60-0	Nitrobenzene-d5	78%	18-104%
321-60-8	2-Fluorobiphenyl	82%	21-114%
1718-51-0	Terphenyl-d14	83%	24-149%

Method Blank Summary

Job Number: T28959R
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12088-MB	H33203.D	1	05/20/09	SC	05/19/09	OP12088	EH1809

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

T28959-23R

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.20	0.066	ug/l	
208-96-8	Acenaphthylene	ND	0.20	0.054	ug/l	
120-12-7	Anthracene	ND	0.20	0.037	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	0.055	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.099	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.056	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	0.059	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	0.046	ug/l	
218-01-9	Chrysene	ND	0.20	0.058	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.032	ug/l	
206-44-0	Fluoranthene	ND	0.20	0.071	ug/l	
86-73-7	Fluorene	ND	0.20	0.062	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	0.11	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.065	ug/l	
91-20-3	Naphthalene	ND	0.20	0.11	ug/l	
85-01-8	Phenanthrene	ND	0.20	0.084	ug/l	
129-00-0	Pyrene	ND	0.20	0.081	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	35%	17-131%
321-60-8	2-Fluorobiphenyl	51%	15-137%
1718-51-0	Terphenyl-d14	49%	10-160%

Blank Spike Summary

Job Number: T28959R
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12099-BS	P03813.D	1	05/21/09	SC	05/21/09	OP12099	EP192

The QC reported here applies to the following samples: **Method:** SW846 8270C

T28959-6R

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1440	86	53-106
208-96-8	Acenaphthylene	1670	1590	95	61-121
120-12-7	Anthracene	1670	1560	94	66-105
56-55-3	Benzo(a)anthracene	1670	1570	94	62-113
50-32-8	Benzo(a)pyrene	1670	1580	95	61-118
205-99-2	Benzo(b)fluoranthene	1670	1570	94	67-110
191-24-2	Benzo(g,h,i)perylene	1670	1490	89	57-124
207-08-9	Benzo(k)fluoranthene	1670	1670	100	65-116
218-01-9	Chrysene	1670	1610	97	71-106
53-70-3	Dibenzo(a,h)anthracene	1670	1480	89	59-123
206-44-0	Fluoranthene	1670	1470	88	64-114
86-73-7	Fluorene	1670	1410	85	65-99
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1510	91	51-133
91-57-6	2-Methylnaphthalene	1670	1340	80	48-101
91-20-3	Naphthalene	1670	1400	84	57-94
85-01-8	Phenanthrene	1670	1530	92	66-102
129-00-0	Pyrene	1670	1680	101	49-117

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	76%	26-124%
4165-62-2	Phenol-d5	78%	19-106%
118-79-6	2,4,6-Tribromophenol	83%	18-129%
4165-60-0	Nitrobenzene-d5	79%	18-104%
321-60-8	2-Fluorobiphenyl	83%	21-114%
1718-51-0	Terphenyl-d14	88%	24-149%

Blank Spike/Blank Spike Duplicate Summary

Job Number: T28959R
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12088-BS	H33204.D	1	05/20/09	SC	05/19/09	OP12088	EH1809
OP12088-BSD	H33205.D	1	05/20/09	SC	05/19/09	OP12088	EH1809

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

T28959-23R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	4.6	92	4.2	84	9	10-125/30
208-96-8	Acenaphthylene	5	5.4	108	4.8	96	12	10-141/30
120-12-7	Anthracene	5	3.7	74	4.3	86	15	13-139/30
56-55-3	Benzo(a)anthracene	5	3.5	70	3.7	74	6	24-151/30
50-32-8	Benzo(a)pyrene	5	4.1	82	4.0	80	2	36-146/30
205-99-2	Benzo(b)fluoranthene	5	3.8	76	3.8	76	0	27-159/30
191-24-2	Benzo(g,h,i)perylene	5	5.3	106	4.5	90	16	21-156/30
207-08-9	Benzo(k)fluoranthene	5	4.2	84	4.2	84	0	26-157/30
218-01-9	Chrysene	5	4.2	84	4.3	86	2	26-146/30
53-70-3	Dibenzo(a,h)anthracene	5	5.2	104	4.4	88	17	23-161/30
206-44-0	Fluoranthene	5	4.9	98	5.2	104	6	20-140/30
86-73-7	Fluorene	5	5.0	100	5.1	102	2	16-126/30
193-39-5	Indeno(1,2,3-cd)pyrene	5	5.3	106	4.5	90	16	25-153/30
91-57-6	2-Methylnaphthalene	5	3.1	62	3.0	60	3	10-115/30
91-20-3	Naphthalene	5	2.8	56	3.1	62	10	11-111/30
85-01-8	Phenanthrene	5	4.4	88	4.4	88	0	23-135/30
129-00-0	Pyrene	5	3.3	66	3.6	72	9	27-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	38%	40%	17-131%
321-60-8	2-Fluorobiphenyl	66%	63%	15-137%
1718-51-0	Terphenyl-d14	42%	44%	10-160%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T28959R
Account: ENSTXIR ENSAFE
Project: COE Brownsville, Texas/0888807792

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12099-MS	P03816.D	1	05/21/09	SC	05/21/09	OP12099	EP192
OP12099-MSD	P03817.D	1	05/21/09	SC	05/21/09	OP12099	EP192
T29330-6	P03815.D	1	05/21/09	SC	05/21/09	OP12099	EP192

The QC reported here applies to the following samples: **Method:** SW846 8270C

T28959-6R

CAS No.	Compound	T29330-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		2000	1110	56	1310	66	17	53-106/49
208-96-8	Acenaphthylene	ND		2000	1220	61	1450	73	17	61-121/49
120-12-7	Anthracene	ND		2000	1510	76	1780	90	16	66-105/40
56-55-3	Benzo(a)anthracene	ND		2000	1640	82	1870	94	13	62-113/43
50-32-8	Benzo(a)pyrene	ND		2000	1640	82	1880	95	14	61-118/44
205-99-2	Benzo(b)fluoranthene	ND		2000	1570	79	1790	90	13	67-110/42
191-24-2	Benzo(g,h,i)perylene	ND		2000	1770	89	1850	93	4	57-124/50
207-08-9	Benzo(k)fluoranthene	ND		2000	1620	81	1860	94	14	65-116/37
218-01-9	Chrysene	ND		2000	1710	86	1920	97	12	71-106/39
53-70-3	Dibenzo(a,h)anthracene	ND		2000	1750	88	1880	95	7	59-123/37
206-44-0	Fluoranthene	ND		2000	1600	80	1820	92	13	64-114/45
86-73-7	Fluorene	ND		2000	1170	59*	1410	71	19	65-99/42
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2000	1790	90	1910	96	6	51-133/55
91-57-6	2-Methylnaphthalene	ND		2000	1010	51	1190	60	16	48-101/48
91-20-3	Naphthalene	ND		2000	1060	53*	1260	64	17	57-94/49
85-01-8	Phenanthrene	ND		2000	1490	75	1740	88	15	66-102/47
129-00-0	Pyrene	ND		2000	1740	87	1930	97	10	49-117/46

CAS No.	Surrogate Recoveries	MS	MSD	T29330-6	Limits
367-12-4	2-Fluorophenol	48%	58%	64%	26-124%
4165-62-2	Phenol-d5	49%	59%	70%	19-106%
118-79-6	2,4,6-Tribromophenol	61%	79%	71%	18-129%
4165-60-0	Nitrobenzene-d5	49%	60%	70%	18-104%
321-60-8	2-Fluorobiphenyl	53%	64%	74%	21-114%
1718-51-0	Terphenyl-d14	79%	90%	80%	24-149%

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/26/09

Technical Report for

ENSAFE

COE Brownsville, Texas/0888807792

Accutest Job Number: T28959A

Sampling Date: 05/13/09

Report to:

ENSAFE

bjackson@ensafe.com
khill@ensafe.com; jrathbone@ensafe.com
ATTN: Jim Rathbone

Total number of pages in report: **17**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

ENSAFE

Job No: T28959A

COE Brownsville, Texas/0888807792

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
T28959-21A	05/13/09	07:20	BJ	05/14/09	AQ	Ground Water	USBRGTW01-1

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	USBRGTW01-1		
Lab Sample ID:	T28959-21A	**Date Sampled:**	05/13/09
Matrix:	AQ - Ground Water	**Date Received:**	05/14/09
		Percent Solids:	n/a
Project:	COE Brownsville, Texas/0888807792		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chloride	32.3	1.0	0.38	mg/l	1	05/19/09 09:00	KD	SM 4500 CL C
Solids, Total Dissolved	12300	100	2.6	mg/l	1	05/19/09 13:00	MC	SM 2540C
Sulfate	5810	100	2.6	mg/l	1	05/19/09 14:00	MC	SM 4500 SO4

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

Page 1 of 3

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #

Bottle Order Control #

Accutest Quote #

Accutest Job # T28959

Client / Reporting Information

Company Name: EnSafe Inc.

Project Contact: Jim Rathbone / Kerry Hill

E-Mail: Bjackson@ENSAFE.com, jrathbone@ensafe.com

Address: 4545 Fuller Drive Suite 342

City / State / Zip: Irving, TX 75038

Ph: 800-588-7962

Fax No.:

Samplers's Name:

Project Information

Project Name / No.:

Bill to: Ensafe

Invoice Attn.:

Address: 5724 Summer Trees Drive

City / State / Zip: Memphis,TN 38134

Phone No.:

Fax No.:

Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Wastewater
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	EnCore	NaHSO4	MeOH	None	VOA (8260) + MTBE	TPHTX1005 / (*) PAH	PAH (8270)	Sulfate, TDS, Chloride	LAB USE ONLY
1	USBRSSB01-8	5/12/09	1040	SO	2								X	✓	✓			
2	USBRSSB01-10	5/12/09	1040	SO	2								X	✓	✓			
3	USBRSSB03-8	5/12/09	~~1255~~ 1130	SO	2								X	✓	✓			
4	USBRSSB03-10	5/12/09	~~1255~~ 1130	SO	2								X	✓	✓			
5	USBRSSB02-6	5/12/09	0945	SO	2								X	✓	✓			
6	USBRSSB02-9	5/12/09	0945	SO	2								X	✓	✓			
7	USBRSSB05-8	5/12/09	1235	SO	2								X	✓	✓			
8	USBRSSB05-10	5/12/09	1235	SO	2								X	✓	✓			
9	USBRSSB08-12	5/12/09	1345	SO	2								X	✓	✓			
10	USBRSSB08-14	5/12/09	1345	SO	2								X	✓	✓			

Turnaround Time (Calendar Days)

- 10 Day STANDARD
- 7 Day RUSH
- 4 Day RUSH
- XX 3 Day EMERGENCY
- 2 Day EMERGENCY
- 1 Day EMERGENCY
- Other

Approved By:/ Date:

RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- Commercial "A"
- X Commercial "B"
- Reduced Tier 1
- Full Data Package
- State Forms
- EDD Format
- TRRP

Commercial "A" = Results Only

Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) Analysis

(*) Analyze Highest TPH Concentration For Both Soil and Groundwater For PAH.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	5/13/09 0943	1	2	5-14-9	2
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 2.0

3.1 3

T28959A: Chain of Custody

Page 1 of 7

CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 2 of 3

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: BJackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis, TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	VOA (8260) + MTBE	TPHTX1005 / (*) PAH	PAH (8270)	Sulfate, TDS, Chloride	LAB USE ONLY
11	USBRSSB07-8	5/12/09	1425	SO	2								X	✓	✓			
12	USBRSSB07-10	5/12/09	1425	SO	2								X	✓	✓			
13	USBRSSB04-8	5/12/09	1525	SO	2								X	✓	✓			
14	USBRSSB04-10	5/12/09	1525	SO	2								X	✓	✓			
15	USBRSSB06-8	5/12/09	1610	SO	2								X	✓	✓			
16	USBRSSB06-14	5/12/09	1610	SO	2								X	✓	✓			
17	USBRSSB09-8	5/12/09	1715	SO	2								X	✓	✓			
18	USBRSSB09-10	5/12/09	1715	SO	2								X	✓	✓			
19	USBRSSB10-8	5/12/09	1750	SO	2								X	✓	✓			
20	USBRSSB10-10	5/12/09	1750	SO	2								X	✓	✓			

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:
RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) Analysis.
(*) Analyze Highest TPH Concentration For Both Soil And Groundwater For PAH.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/13/09 0943	1	2 [signature]	5/14 9:20	2 [signature]
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 2.0

3.1 3

T28959A: Chain of Custody
Page 2 of 7

CHAIN OF CUSTODY

Page 3 of 3

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T28959

Client / Reporting Information

Company Name: EnSafe Inc.
Project Contact: Jim Rathbone / Kerry Hill
E-Mail: BJackson@ENSAFE.com, jrathbone@ensafe.com
Address: 4545 Fuller Drive Suite 342
City / State / Zip: Irving, TX 75038
Ph: 800-588-7962
Fax No.:
Samplers's Name:

Project Information

Project Name / No.:
Bill to: Ensafe
Invoice Attn.:
Address: 5724 Summer Trees Drive
City / State / Zip: Memphis, TN 38134
Phone No.:
Fax No.:
Client Purchase Order #: # 8812 COE

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	VOA (8260) + MTBE	TPHTX1005 (*) PAH	PAH (8270)	Sulfate, TDS, Chloride *	LAB USE ONLY
21	USBRGTW01-1	5/13/09	0720	GW	7	6							1	✓	✓			
22	USBRGTW02-[redacted]1	5/13/09	0757	GW	7	6							1	✓	✓		✓	
23	USBRGTW03-1	5/13/09	0800	GW	7	6							1	✓	✓			
24-26	TRIP BLANK	5/12/09	0700	WQ	3	3								✓				

Turnaround Time (Calendar Days)

- [ ] 10 Day STANDARD
- [ ] 7 Day RUSH
- [ ] 4 Day RUSH
- [XX] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:
RUSH!!

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] State Forms
- [ ] EDD Format
- [ ] TRRP

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Add MTBE to the VOA (8260) ANALYSIS.
(*) Analyze HIGHEST TPH Concentration For Both SOIL AND GROUNDWATER FOR PAH.
(*) Use PAH Container to Analyze Wet chem Parameters
Ensafe to contact lab.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/13/09-0943	1	2 [signature]	5-14-9 930	2 [signature]
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 2.0

3.1 3

T28959A: Chain of Custody
Page 3 of 7

SAMPLE INSPECTION FORM

Accutest Job Number: T28959 Client: Enscafe Date/Time Received: 5-14-9

# of Coolers Received: 3 Thermometer #: IR-1 Temperature Adjustment Factor: -0.4

Cooler Temps: #1: 3.4 #2: 2.4 #3: 2.0°C #4: _____ #5: _____ #6: _____ #7: _____ #8: _____

Method of Delivery: (FEDEX) UPS Accutest Courier Greyhound Delivery Other

Airbill Numbers: _____

COOLER INFORMATION

- [ ] Custody seal missing or not intact
- [ ] Temperature criteria not met
- [ ] Wet ice received in cooler

CHAIN OF CUSTODY

- [ ] Chain of Custody not received
- [ ] Sample D/T unclear or missing
- [ ] Analyses unclear or missing
- [ ] COC not properly executed

SAMPLE INFORMATION

- [ ] Sample containers received broken
- [ ] VOC vials have headspace
- [ ] Sample labels missing or illegible
- [ ] ID on COC does not match label(s)
- [ ] D/T on COC does not match label(s)
- [ ] Sample/Bottles rcvd but no analysis on COC
- [ ] Sample listed on COC, but not received
- [ ] Bottles missing for requested analysis
- [ ] Insufficient volume for analysis
- [ ] Sample received improperly preserved

TRIP BLANK INFORMATION

- [ ] Trip Blank on COC but not received
- [ ] Trip Blank received but not on COC
- [ ] Trip Blank not intact
- [ ] Received Water Trip Blank
- [ ] Received Soil TB

Number of Encores? _____
Number of 5035 kits? _____
Number of lab-filtered metals? _____

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: 5-14-9

INFORMATION AND SAMPLE LABELING VERIFIED BY: DB

CORRECTIVE ACTIONS

Client Representative Notified: _____ **Date:** _____

By Accutest Representative: _____ **Via:** Phone Email

Client Instructions:

3.1

3

T28959A: Chain of Custody
Page 4 of 7

SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe Inc. INITIALS: E c

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
	1	US BRSS B01-8	5-12-9 1010	S	40Z	1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	1	01-8	1010			2	VR	1 2 3 4 5 6 7 8	<2	>12
	2	01-10	1010			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	2	01-10	1010			2	VR	1 2 3 4 5 6 7 8	<2	>12
	3	03-8	1130			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	3	03-8				2	VR	1 2 3 4 5 6 7 8	<2	>12
	4	03-10				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	4	03-10				2	VR	1 2 3 4 5 6 7 8	<2	>12
	5	02-6	945			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	5	02-6				2	VR	1 2 3 4 5 6 7 8	<2	>12
	6	02-9				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	6	02-9				2	VR	1 2 3 4 5 6 7 8	<2	>12
	7	05-8	1235			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	7	05-8				2	VR	1 2 3 4 5 6 7 8	<2	>12
	8	05-10				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	8	05-10				2	VR	1 2 3 4 5 6 7 8	<2	>12
	9	03-12	1345			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	9	03-12				2	VR	1 2 3 4 5 6 7 8	<2	>12
	10	03-14				1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	10	03-14				2	VR	1 2 3 4 5 6 7 8	<2	>12
	11	07-8	1445			1	2-GG	1 2 3 4 5 6 7 8	<2	>12
	11	07-8				2	VR	1 2 3 4 5 6 7 8	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe INITIALS: E C

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
	12	USBRSS B07-10	5-12-9 1425	S	4oz	1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	12	07-10	"			2	VR	1 2 3 4 5 6 7 8	<2 >12
	13	04-8	1525			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	13	04-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	14	04-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	14	04-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	15	06-8	1610			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	15	06-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	16	06-14				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	16	06-14				2	VR	1 2 3 4 5 6 7 8	<2 >12
	17	09-8	1715			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	17	09-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	18	09-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	18	09-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	19	10-8	1750			1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	19	10-8				2	VR	1 2 3 4 5 6 7 8	<2 >12
	20	10-10				1	2-GG	1 2 3 4 5 6 7 8	<2 >12
	20	10-10				2	VR	1 2 3 4 5 6 7 8	<2 >12
	21	USBRGTW 01-1	5-13-9 720	W	1000ml	1	1-II	1 2 3 4 5 6 7 8	<2 >12
					4am	2-4	"	1 2 3 4 5 6 7 8	<2 >12
					"	5-7	VR	1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

T28959A: Chain of Custody
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SAMPLE RECEIPT LOG

JOB #: T28959 DATE/TIME RECEIVED: 5-14-9 930

CLIENT: Ensafe INITIALS: SC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
	22	USBRG TW02-1	5-13-9 757	W	1000ml	1	II	1	<2	>12
					40ml	2-4	"	1	<2	>12
						5-7	VR	1	<2	>12
	23	03-1	0800		1000ml	1	II	1	<2	>12
					40	2-4	"	1	<2	>12
					"	5-7	VR	1	<2	>12
1	24	Trip Blank	—	—	40ml	1-3	M	1	<2	>12
2	25	"	—	—				1	<2	>12
3	26	"	—	—				1	<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12
									<2	>12

SC 5-14-9

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

3.1

3

T28959A: Chain of Custody

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General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T28959A
Account: ENSTXIR - ENSAFE
Project: COE Brownsville, Texas/0888807792

4.1

4

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP6448/GN16863	1.0	0.0	mg/l	1000	994	99.3	92-107%
Solids, Total Dissolved	GN16881	10	0.0	mg/l				
Sulfate	GN16883	10	0.0	mg/l	100	98.4	98.3	80-120%

Associated Samples:
Batch GN16881: T28959-21A
Batch GN16883: T28959-21A
Batch GP6448: T28959-21A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T28959A
Account: ENSTXIR - ENSAFE
Project: COE Brownsville, Texas/0888807792

4.2
4

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP6448/GN16863	T28479-1	mg/l	22.4	22.4	0.0	0-5%
Solids, Total Dissolved	GN16881	T29131-1	mg/l	13600	13600	0.1	0-15%
Sulfate	GN16883	T28941-1	mg/l	35.0	35.4	1.2	0-20%

Associated Samples:
Batch GN16881: T28959-21A
Batch GN16883: T28959-21A
Batch GP6448: T28959-21A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T28959A
Account: ENSTXIR - ENSAFE
Project: COE Brownsville, Texas/0888807792

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP6448/GN16863	T28479-1	mg/l	22.4	10	31.8	94.4	81-119%
Sulfate	GN16883	T28941-1	mg/l	35.0	25	60.5	102.0	75-125%

Associated Samples:
Batch GN16883: T28959-21A
Batch GP6448: T28959-21A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Attachment E

Table 2 — Summary of Groundwater Samples Analytical Results

Table 2- Groundwater Analytical Data Summary Brownsville Phase II- Brownsville, TX				
Monitor Well ID	TW01	TW02	TW03	
Field Sample ID	USBRGTW01-1	USBRGTW02-1	USBRGTW03-1	TCEQ Action Levels[1]
Sample Date	05/13/09	05/13/09	05/13/09	
Units	(mg/l)	(mg/l)	(mg/l)	(mg/l)
TPH[2]				
C6 to C12	1.87	2.40	5.43	N.A.
>C12 to C28	2.95	2.99	3.30	N.A.
>C28 to C35	ND	ND	ND	N.A.
C6-C35	4.82	5.39	8.73	N.A.
VOC				
Acetone	ND	ND	0.0204	5.21
Benzene	ND	ND	0.0393	0.14
n-Butylbenzene	0.0152	ND	ND	N.A.
sec-Butylbenzene	0.0072	0.0174	0.0263	N.A.
Ethylbenzene	ND	ND	0.0171	5.21
Isopropylbenzene	0.0153	0.13	0.2120	N.A.
Methyl Tert Butyl Ether	3.55	ND	0.0296	0.36
Naphthalene*	0.0163	0.167	0.176	2.08
n-Propylbenzene	0.0292	0.169	0.3590	N.A.
Toluene	ND	ND	0.0033	10.4
Xylene (total)	ND	ND	0.0081	104
PAH				
Naphthalene*	NA	NA	0.138	2.08
Acenaphthene	NA	NA	0.0034	3.13
Fluorene	NA	NA	0.0040	2.08
2-Methylnaphthalene	NA	NA	0.0174	N.A.
Phenenthrene	NA	NA	0.0025	1.1
General Chemistry				
Chloride	32.3	NA	NA	N.A.
Solids, Total Dissolved	12,300	NA	NA	N.A.
Sulfate	5,810	NA	NA	N.A.

Notes:

1. The TCEQ Action Level is derived from two sources: applicable Target Groundwater Concentrations found in Appendix A of RG-36 (Risk Based Corrective Action for Leaking Storage Tank Sites) for Class III Groundwater (January 1994), and Table 1 TCEQ PST Program Action Levels (March 2009).

2. No TCEQ Action Level is available. TPH is required to screen for PAH sample analysis selection only.

Shaded values indicate an exceedance of applicable TCEQ Risk Based Corrective Action Levels and/or TCEQ PST Action Levels.

NA - Not Analyzed

N.A. - Not Available

ND - Not detected above method detection limits.

* Naphthalene analyzed by method 8260 for the VOC analytical suite and by method 8270 for the SVOC analytical suite.

Attachment F

August 12, 1997 TCEQ Interoffice Memorandum

Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Anton Rozsypal, Manager
Responsible Party Investigations Section

Danny Lien, Manager
Responsible Party Remediation Section

Jackie Hardee, Manager
State Lead Remediation Section

Date: August 12, 1997

Thru: Joe Woodard, Director
Petroleum Storage Tank Division

From: Chet Clarke, Technical Specialist
Petroleum Storage Tank Division

Subject: Adjustment to March 6, 1997 Protective Concentrations in Groundwater for Construction Worker Exposure to Account for Time-Averaged Exposure

Representatives from the membership of the Texas Mid-Continent Oil and Gas Association (TMOGA) have evaluated the methodology employed in the March 6, 1997 Interoffice Memorandum (IOM) entitled *Clarifications and Amendments for Implementation of RG-36* to calculate groundwater concentrations protective for dermal contact and inhalation of volatile emissions by construction workers. The methodology used in the March 6, 1997 IOM assumes a constant concentration of the chemical of concern (COC) in the pit water over the exposure period. TMOGA contends that the use of a constant pit water concentration significantly overestimates intake via the dermal and inhalation exposure pathways. To more appropriately estimate intake, TMOGA recommends the use of time-averaged COC concentrations in the pit water to estimate intake. For volatile COCs, the rate of volatilization from the pit water is likely much greater than the rate groundwater flow resupplies COCs to the pit water. Therefore, the concentration of volatile COCs in the pit water should be expected to decrease over the exposure period.

In response to and after technical evaluation of the TMOGA recommendation, the methodology to determine groundwater concentrations protective for construction worker exposure will now be based on time-averaged concentrations. New target groundwater concentrations for construction worker exposure are presented in Table 1 and should now be used in lieu of the target groundwater concentrations presented in Table 4 of the March 6, 1997 IOM. These new pre-calculated target groundwater concentrations may be adjusted with the substitution of site-specific information for the

default assumptions. The equations used to derive the time-averaged concentrations and all default assumptions upon which the amended concentrations are based are included as Attachment 1. All chemical properties presented in RG-36 were used if available, otherwise the chemical properties were taken from Attachment 2 which has been developed to support the new Texas Risk Reduction Program. In the application of these values, the cumulative risk/hazard index criteria specified in the March 6, 1997 IOM must still be achieved.

Table 1. Target Groundwater Concentrations for Construction Worker Exposure*

Constituent	Target Groundwater Concentrations (mg/l)			
	Inhalation (mg/l)	Dermal (mg/l)	Combined Inhalation and Dermal (mg/l)	Target Concentration Based on Time Averaging (mg/l)
Acenapthene	-----	2.33e-01	2.33e-01	**6.30e-01**
Acetone	-----	6.02e+02	6.02e+02	**1.06e+03**
Anthracene	-----	3.24e+00[s]	3.24e+00[s]	**1.41e+01[s]**
Benzene	5.98e+00	8.01e+00	3.42e+00	**2.01e+01**
Benzo(a)anthracene	3.21e+01	1.11e-03	1.11e-03	**1.14e-03**
Benzo(b)fluoranthene	5.81e+00	5.05e-04	5.05e-04	**5.80e-04**
Benzo(k)fluoranthene	7.72e+03	5.05e-03	5.05e-03	**5.05e-03[s]**
Benzo(a)pyrene	6.69e+00	5.05e-05	5.05e-05	**5.10e-05**
Chrysene	5.72e+03	1.12e-01	1.12e-01	**1.13e-01[s]**
Dibenz(a,h)anthracene	9.43e+01	2.32e-05	2.32e-05	**2.32e-05**
Dichloro(1,2)benzene	1.09e+01	4.44e+00	3.16e+00	**1.44e+01**
Dichloro(1,3)benzene	-----	4.39e+00	4.39e+00	**2.09e+01**
Dichloro(1,4)benzene	-----	2.40e+01	2.40e+01	**1.09e+02**
Ethylbenzene	5.35e+01	4.97e+00	4.55e+00	**2.17e+01**
Fluoranthene	-----	6.07e-02	6.07e-02	**6.67e-02**
Flourene	-----	6.81e-01	6.81e-01	**1.55e+00**
Formaldehyde[F]	2.17e+02	3.30e+02	-----	**2.28e+02**
Indeno(1,2,3-cd)pyrene	1.04e+03	2.30e-04	2.30e-04	**2.30e-04**
Methyl Ethyl Ketone	1.78e+02	1.90e+03	1.63e+02	**3.02e+02**
Naphthalene	-----	1.92e+00	1.92e+00	**8.35e+00**
Pyrene	-----	4.55e-02	4.55e-02	**4.89e-02**
Toluene	2.00e+01	1.91e+01	9.76e+00	**4.88e+01**
Xylene	3.53e+01	9.09e+01	2.54e+01	**1.27e+02**

* Target concentrations are based on a Hazard Quotient of 1 for noncarcinogens and a risk level of 10^{6} for Class A and B carcinogens, and a risk level of 10^{5} for Class C carcinogens.

s Denotes target concentration exceeds pure component solubility limit.

F Formaldehyde has a non-carcinogenic RfD for dermal effects and carcinogenic SF for inhalation effects. Therefore, inhalation and dermal exposure are evaluated as independent pathways. The target concentration for formaldehyde is based on inhalation exposure as it is the more protective concentration.

Please note that for some compounds the target concentrations may be below analytical detection limits, and are therefore not measureable for purposes of demonstrating conformance with the target concentrations. In these situations, the method PQL will suffice.

Attachment A:

To calculate the target groundwater concentration based on time-averaged exposure:

Step 1: Determine the protective groundwater concentration for dermal contact and inhalation of volatiles emissions in accordance with the methodology prescribed in the March 6, 1997 IOM. (However, if no inhalation slope factor (SF_i) or inhalation reference dose (RfD_i) are available for the COC, then exposure should only be based on dermal contact). (Pre-calculated values are provided in Table B).

Step 2: Determine the average concentration of the pit water using the equation presented in Table A. Chemical factors and pre-calculated values are provided in Table B and are presented in Table B.

Step 3: Divide the average concentration C_{avg} determined in Step 2 by the initial concentration C_o (C_{avg}/C_o). For simplicity, an initial concentration of 1 mg/l may be assumed.

Step 4: Divide the groundwater concentration determined in Step 1 by the ratio C_{avg}/C_o determined in Step 3 to yield a time-averaged protective groundwater concentration.

Table A

$$C_{avg} = C_o/a\tau[b\tau + (b/a - 1)(e^{-a\tau}-1)$$

where:

$$a = ([K_{wa}/d] + [3D_{wat}/wL] + [D_{wat}/dL] + [Ki/w]), \text{ and}$$

$$b = ([Ki/w] + [3D_{wat}/wL] + [D_{wat}/dL])$$

Parameter	Definition	Default Value
C_{avg}	Average dissolved COC concentration over time τ (mg/l)	chemical specific
C_o	Initial dissolved COC concentration (mg/l)	1.0
τ	Exposure interval (3 weeks) (s)	1.81×10^6
K_{wa}	Overall mass transfer coefficient (m/s)[1]	chemical specific (see Table B)
d	Depth of water in pit (m)	1
D_{wat}	Diffusion coefficient in water (cm^2/s)	chemical specific
w	width of excavation (cm)	470
L	Characteristic length for diffusion (assumed equivalent to 1 foot) (cm)	30.48
K	Hydraulic conductivity (cm/s)	[2]1.7×10^{-4}
i	Hydraulic gradient (m/m)	[2]0.025

[1] This parameter was denoted as "K" in the March 6, 1997 IOM.
[2](75th percentile value from Bureau of Economic Geology study, (Mace and others, 1997))

Table B. Factors for Time-Averaging Equation and Diffusion in Air Coefficients

Constituent	D_{air} (cm^2/s)	D_{wat} (cm^2/s)	K_{wa}* (m/s)	a (/s)	b (/s)	C_{avg} (mg/l)	C_{avg}/C_o
Acenapthene	6.95e-02	7.69e-06	1.36e-06	1.37e-06	1.32e-08	0.37	0.37
Acetone	1.09e-01	1.14e-05	6.88e-07	7.04e-07	1.52e-08	0.57	0.57
Anthracene	5.68e-02	7.74e-06	2.39e-06	2.40e-06	1.32e-08	0.23	0.23
Benzene	9.33e-02	1.10e-05	3.25e-06	3.27e-06	1.50e-08	0.17	0.17
Benzo(a)anthracene	5.10e-02	9.80e-06	2.89e-08	4.32e-08	1.43e-08	0.97	0.97
Benzo(b)fluoranthene	2.26e-02	5.56e-06	1.60e-07	1.72e-07	1.20e-08	0.87	0.87
Benzo(k)fluoranthene	2.26e-06	5.56e-06	1.20e-09	1.32e-08	1.20e-08	1.00	1.00
Benzo(a)pyrene	4.30e-02	9.00e-06	1.39e-08	2.77e-08	1.39e-08	0.99	0.99
Chrysene	2.48e-02	6.21e-06	1.62e-08	2.86e-08	1.24e-08	0.99	0.99
Dibenz(a,h)anthracene	2.00e-02	5.18e-06	9.83e-10	1.28e-08	1.18e-08	1.00	1.00
Dichloro(1,2)benzene	6.88e-02	7.90e-06	2.53e-06	2.55e-06	1.33e-08	0.22	0.22
Dichloro(1,3)benzene	6.88e-02	8.13e-06	2.63e-06	2.64e-06	1.34e-08	0.21	0.21
Dichloro(1,4)benzene	6.88e-02	7.90e-06	2.57e-06	2.58e-06	1.33e-08	0.22	0.22
Ethylbenzene	7.48e-02	7.80e-06	2.59e-06	2.61e-06	1.32e-08	0.21	0.21
Fluoranthene	3.02e-02	6.35e-06	1.09e-07	1.22e-07	1.25e-08	0.91	0.91
Flourene	6.26e-02	7.88e-06	1.09e-06	1.10e-06	1.33e-08	0.44	0.44
Formaldehyde	1.80e-01	2.00e-05	5.72e-08	7.70e-08	1.98e-08	0.95	0.95
Indeno(1,2,3-cd)pyrene	1.90e-02	5.66e-06	8.91e-10	1.30e-08	1.21e-08	1.00	1.00
Methyl Ethyl Ketone	9.43e-02	9.80e-06	7.77e-07	7.91e-07	1.43e-08	0.54	0.54
Naphthalene	5.90e-02	7.50e-06	2.39e-06	2.40e-06	1.31e-08	0.23	0.23
Pyrene	2.72e-02	7.24e-06	8.17e-08	9.46e-08	1.29e-08	0.93	0.93
Toluene	8.38e-02	8.60e-06	2.77e-06	2.78e-06	1.37e-08	0.20	0.20
Xylene	7.40e-02	8.50e-06	2.75e-06	2.76e-06	1.36e-08	0.20	0.20

* K_{wa} is based on D_{wat} values updated since the March 6, 1997 IOM.