A
West

A'
East

MW-12

MW-17/18

MW-19

G1010447C

G1012882A

GV11503

TD11338

TD11239

TD11235

SCREENED INTERVAL 260' - 280'

SCREENED INTERVAL 284' - 297'

SCREENED INTERVAL 240' - 260'

SET SCREEN @ 410' - 430'

Chicot Aquifer

Evangeline Aquifer

Approximate Chicot Aquifer/Evangeline Aquifer Hydrologic Boundary

11,375 ft (2.15 mi)

1,313 ft

1,750 ft

11,480 ft (2.17 mi)

Horizontal scale is approximate

DEPTH BELOW GROUND SURFACE (feet)

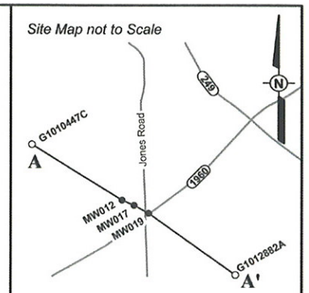
0
-100
-200
-300
-400
-500
-600
-700
-800
-900
-1000
-1100
-1200
-1300

West
A

East
A'

129389_1400_D1_REGXSECAA_08

Site Map not to Scale



Explanation

MW-13

Resistivity data

Lithology Graphics

- Sand
- Clay
- Lithology Boundary
- Approximate Lithology Boundary
- PCE Concentration < 0.5 ppb In Groundwater
- PCE Concentration Not Sampled
- Well Screen

0
100
Vertical Scale (feet)

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Figure 10
Stratigraphic Cross Section A-A'
West-East Baseline

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Jones Road Superfund Site
Harris County TX

JOB NUMBER	PLATE NUMBER
129389	Plate _

B South

B' North

G1012097A

G1012740A

MW-11R

MW-12 OV11503

MW-13

MW-15

TT11303 TC11330 TC11315 TT11306 TT11227 TT11227 TT11215 FV11215 FV11135 TC11336 FV11130 ES11643 ES11703 ES11716

SCREENED INTERVAL 249' - 269'

SCREENED INTERVAL 260' - 280'

SCREENED INTERVAL 276' - 296'

SCREENED INTERVAL 274' - 294'

Chicot Aquifer

Evangeline Aquifer

Approximate Chicot Aquifer/Evangeline Aquifer Hydrologic Boundary

12,469 ft (2.35 mi)

1,313 ft

1,313 ft

2,188 ft

12,906 ft (2.44 mi)

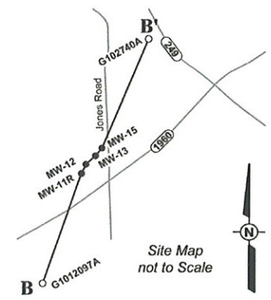
Horizontal scale is approximate

DEPTH BELOW GROUND SURFACE (feet)

0 -100 -200 -300 -400 -500 -600 -700 -800 -900 -1000 -1100 -1200 -1300 -1400 -1500 -1600 -1700 -1800

B South

B' North



Site Map not to Scale

Explanation

MW-13

Resistivity data

Lithology Graphics

- Sand
- Clay
- Lithology Boundary
- Approximate Lithology Boundary
- PCE Concentration > 5 ppb In Groundwater
- PCE Concentration ≥ 0.5 ppb to ≤ 5 ppb In Groundwater
- PCE Concentration < 0.5 ppb In Groundwater
- PCE Concentration Not Sampled
- Well Screen

0 100 Vertical Scale (feet)

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Figure 11
Stratigraphic Cross Section B-B'
South-North Baseline

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Jones Road Superfund Site
Harris County TX

JOB NUMBER	PLATE NUMBER
129389	Plate _

129389_1400_D2_REGXSECBB_08

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	FILE PATH
Houston, TX	B. Lu 06/30/08	R. Perry 07/08/08		C:\MyDoc\Temporary\RussP\Well_Locations.mxd

AERIAL PHOTOGRAPH SOURCE: 2004 NAIP 1m (TEXAS NATURAL RESOUCES INFORMATION SYSTEM).

Plot Date: 07/08

EXPLANATION

- CHICOT MONITOR WELL LOCATION
- EVANGELINE MONITOR WELL LOCATION
- STREET

0 250 500 1,000 Feet

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FIGURE 6

DEEP MONITOR WELL LOCATION MAP
JONES ROAD SUPERFUND SITE

HARRIS COUNTY, TEXAS

PLOT DATE: 7/23/07
FORMAT REVISION 5/13/02

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
---	---	Houston, Texas	L, JONES	7/02/08	R. PERRY	7/02/08	R. PERRY	7/02/08	129389-A2

Era	System	Series	Stratigraphic Units	Hydrogeologic Units	Selected Faunal Markers	Remarks
CENOZOIC	Quaternary	Holocene	Alluvium	Chicot aquifer		Quaternary System undifferentiated on sections.
		Pleistocene	Beaumont Clay Montgomery Formation Bentley Formation Willis Sand			
	Tertiary	Pliocene	Goliad Sand	Evangeline aquifer		Goliad Sand overlapped east of Lavaca County.
		Miocene	Fleming Formation	Burkeville confining system	*Potamides matsoni* *Bigenerina nodosaria var. directa* *Bigenerina humblei* *Amphistegina sp.*	
			Oakville Sandstone	Jasper aquifer		Oakville Sandstone included in Fleming Formation east of Washington County.
			Catahoula Tuff or Sandstone (Subsurface): Upper part of Catahoula Tuff or Sandstone	Catahoula confining system (restricted)	*Discorbis nomada* *Discorbis gravelli* *Heterostegina sp.* *Marginulina idiomorpha*	Catahoula Tuff designated as Catahoula Sandstone east of Lavaca County.
			Catahoula Tuff or Sandstone (Subsurface): Anahuac Formation			Anahuac and "Frio" Formations may be Oligocene in age.
			Catahoula Tuff or Sandstone (Subsurface): "Frio" Formation		*Textularia mississippiensis*	
		Oligocene(?)	Surface: Frio Clay; Subsurface: Vicksburg Group equivalent		*Textularia warreni*	Frio Clay overlapped or not recognized on surface east of Live Oak County.
		Eocene	Jackson Group: Whitsett Formation: Fashing Clay Member	Not discussed as hydrologic units in this report.		Indicated members of Whitsett Formation apply to south-central Texas. Whitsett Formation east of Karnes County may be, in part or in whole, Oligocene in age.
			Jackson Group: Whitsett Formation: Calliham Sandstone Member or Tordilla Sandstone Member			
			Jackson Group: Whitsett Formation: Dubose Member		*Marginulina cocoaensis*	
			Jackson Group: Whitsett Formation: Deweesville Sandstone Member			
			Jackson Group: Whitsett Formation: Conquista Clay Member		*Textularia hockleyensis* *Massilina pratti*	
			Jackson Group: Whitsett Formation: Dilworth Sandstone Member			
			Jackson Group: Manning Clay		*Textularia dibollensis*	
			Jackson Group: Wellborn Sandstone			
			Jackson Group: Caddell Formation		*Nonionella cockfieldensis*	
			Claiborne Group: Yegua Formation		*Discorbis yeguaensis*	
			Claiborne Group: Cook Mountain Formation		*Eponides yeguaensis*	
			Claiborne Group: Sparta Sand		*Ceratobulimina eximia*	
			Claiborne Group: Weches Formation			
			Claiborne Group: Queen City Sand			
			Claiborne Group: Reklaw Formation			
			Claiborne Group: Carrizo Sand			
		Paleocene	Wilcox Group			
			Midway Group			

REFERENCE:
TEXAS DEPARTMENT OF WATER RESOURCES
REPORT 236 – STRATIGRAPHIC AND HYDROGEOLOGIC
FRAMEWORK OF PART OF THE COASTAL PLAIN OF TEXAS, JULY 1979

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FIGURE 7
STRATIGRAPHIC AND HYDROGEOLOGIC FRAMEWORK OF PART OF THE COASTAL PLAIN OF TEXAS

DRAWING NUMBER	APPROVED BY	CHECKED BY
129389-B8	---	---

DRAWN BY	OFFICE	X-REF	IMAGE
L. JONES 6/03/08	Houston, Texas	---	---

PLOT DATE: 6/03/08
FORMAT REVISION 3/25/99

SITE LOCATION

EXPLANATION

Qbb
Qb
Qb

Beaumont Formation

Beaumont Formation, Qb, with barrier-island and beach deposits, Qbb, mapped separately. Beaumont Formation, Qb, mostly clay, silt, and sand; includes mainly stream channel, point-bar, natural levee, backswamp, and to a lesser extent coastal marsh and mud-flat deposits; concretions of calcium carbonate, iron oxide, and iron-manganese oxides in zone of weathering; surface almost featureless, characterized by relict river channels shown by meander patterns and pimple mounds on meanderbelt ridges, separated by areas of low, relatively smooth, featureless backswamp deposits without pimple mounds; thickness ± 100 feet. The stippled overprint (source shown in Index to Geologic Mapping) shows areas that are "Dominantly clay and mud of low permeability, high water-holding capacity, high compressibility, high to very high shrink-swell potential, poor drainage, level to depressed relief, low shear strength, and high plasticity; geologic units include interaistributary muds, abandoned channel-fill muds, and overbank fluvial muds." The nonstippled areas are "Dominantly clayey sand and silt of moderate permeability and drainage, low to moderate compressibility and shrink-swell potential, level relief with local mounds and ridges, and high shear strength; geologic units include meanderbelt, levee, crevasse splay, and distributary sands"

Pleistocene — QUATERNARY

Barrier-island and beach deposits, Qbb, mostly fine grained sand normally without shell material; surface slightly higher than that of surrounding deposits, characterized by numerous pimple mounds and rounded depressions; probably part of "Ingleside" barrier-island system; thickness less than 30 feet
Physical properties: "Dominantly sand, high to very high permeability, low water-holding capacity, low compressibility, low shrink-swell potential, good drainage, low ridge and depressed relief, high shear strength, and low plasticity. Geologic units include beach, foredunes, barrier-strandplain-chenier vegetated flats, Pleistocene barrier and strandplain sands"

Ql

Lissie Formation

Upper part, clay, silt, sand, and very minor siliceous gravel of granule and small pebble size, gravel more abundant northwestward, locally calcareous, concretions of calcium carbonate, iron oxide, and iron-manganese oxides common in zone of weathering; fluviatile; surface fairly flat and featureless except for numerous rounded shallow depressions and pimple mounds. Lower part, clay, silt, sand, and minor amount of gravel; gravel slightly coarser than in upper part, noncalcareous, iron oxide concretions more abundant than in upper part; fluviatile; very gently rolling; thickness ± 200 feet

Pleistocene — QUATERNARY

Qw

Willis Formation

Clay, silt, sand, and minor siliceous gravel of granule to pebble size including some petrified wood; sand coarser than in younger units. Deeply weathered and lateritic, indurated by clay and cemented by iron oxide locally, concretions of iron oxide numerous, noncalcareous; fluviatile; maximum thickness 75 feet

Miocene — TERTIARY

T

Tertiary rocks on Hockley salt dome

Sandstone, very fine grained, hard, abundant porcelaneous to opaline cement, poorly bedded, jointed, grayish white; possibly Catahoula Formation (Stenzel, 1946) (See Index of Geologic Mapping for reference.)

REFERENCE: BUREAU OF ECONOMIC GEOLOGY, 1982, GEOLOGIC ATLAS OF TEXAS, HOUSTON SHEET.

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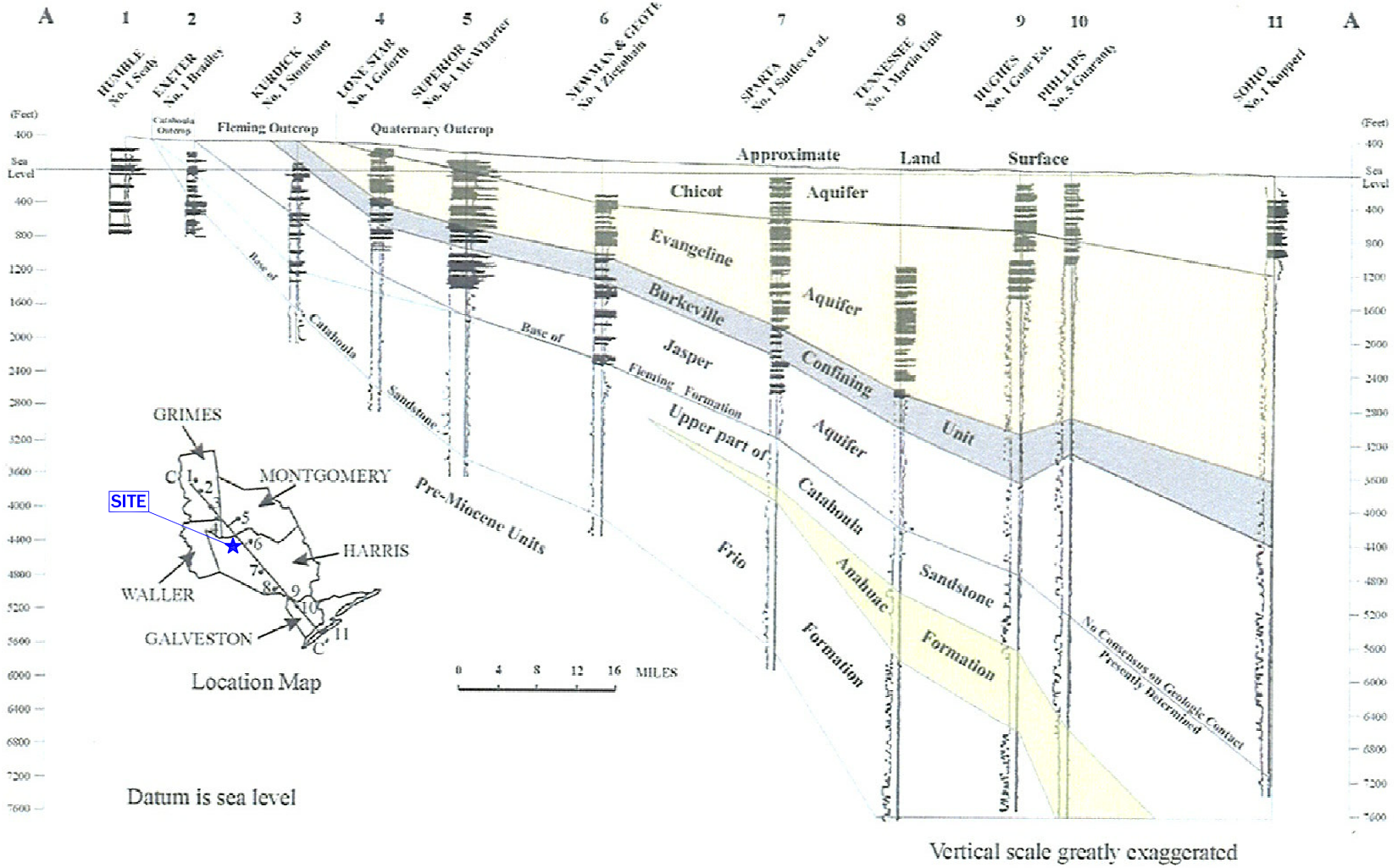
FIGURE 8
GEOLOGIC FORMATION OUTCROPS IN STUDY AREA
11600 JONES ROAD
HARRIS COUNTY, TEXAS

PLOT DATE: 7/08/08
FORMAT REVISION 5/13/02

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
---	---	Houston, Texas	L. JONES	7/08/08	---	---	---	---	129389-A4



REFERENCE:
FIGURE 2-14 CROSS-SECTION SHOWING THICKNESS OF THE AQUIFERS DOWN-DIP IN THE NORTHERN PART OF THE GULF COAST (AFTER BAKER, 1979; KASMAREK, UNPUBLISHED DATA).
REFERENCE: TEXAS WATER DEVELOPMENT BOARD REPORT 356 (FEBRUARY 2006).

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FIGURE 9

REGIONAL CROSS SECTION

HARRIS COUNTY, TEXAS