Mississippi - Atchafalaya River Contaminant
Inventory (RCI) 01RCI02 4/26/01
South Pass at mouth
SEISMIC / CHIRP
Crew: Dave B., Dana W., Gina Brewer, Jim F.
Deploy equip. 855. Skies clear, winds 15 kts,
River calm, current 4-5 kts. Seas offshore 3' chop.

01RCI02
~~Seismic~~ BOOMER SOL 1409 heading upstream at Pt. Eades 10' wide.
Boomer Line 01B001, SOG 2.7
CHIRP 01C001B 1432, Record looks bad
1433 Turning downstream, 1439 Completed turn, headed downstream
SOG 3.6
1525 CHIRP has been disabled. Turning downstream
at lighthouse (had turned back upstream previously)

Chirp is not working. ~~Computer~~
Computer can not handle Nav, Bathy and UTM conversion at
Same time. Shut everything down, anchor (1200) and reconfigure
computers back to lat/long - no UTM conversion.
At. Pt. Eades Inlet.

1300 Changed system back to lat/long

BOOMER Line 01B002 heading ~~north~~ upstream ~~to~~ from Pt. Eades SOL 1757
SOG 3.0 kts. not much current
1902, heading to other side.

Possible feature at 192820 29°04.504 89°12.9371

19:2620 – 192720

(A)

core site 29°04.4623 89°12.9061

193020 - 19320 Shallow sand waves? 89°12.994 29°4.563

up to 1938 (~29°04.9247) multiple possible sandwaves.

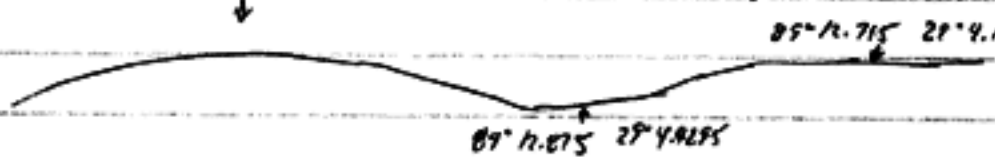
1938 hit something w/ sidescan - slowing down.

89°13.0597 29°04.6968

195320 turning around - put sidescan back in.

195620 89 13.2216 29°04.828 Sand waves

89° 12.932 29°4.4907 Hit 'A' feature again 200320.



20°09°20 turning across river heading upstream

201320 finishing turn

204120 Turning south EOL

2043 SOL 0113003 coming out of turn heading south

2054 turning across river heading north

Shallow sandwaves (eastern periphery?) 89°12.8387 29°45235

Strong reflector (base of waves?) 89° 13.077 29°04.832 212714

~22 ms - river bottom @ ~18 ms core site.

213014 turning southward 213314 complete turn

EOL, EOD 214214.

89° 08.7189
29° 10.0969

4/27/01 Miss.-Atch. RCI Boomer / ~~CHIRP~~ / Sidescan.
Skies clear, wind 10 kts., Seas 1-2' chop. offshore
South Pass, Garden Bay. Running shore parallel Garden Bay.
Crew: Dave B., Gina B., Dana W., Jim F.
1417z started recording Sidescan.
SOL 018004 1431, heading 250° along G.B.
151805, passing inlet where Chem core was acquired 89° 06.479 29° 03.4069

170817 Boomer froze (out of paper) at South Pass inlet,
near mudmounds

29° 07.0202 89° 14.5007 Sand waves 19'
29° 07.593 89° 14.548 Sand waves 28'

North Pass
* Big Mound at first pipeline crossing

- 9 ft. at 1st spoil island

- 7 ft. just before house

4/28 Boomer / ~~Sa~~ CHIRP Miss.-Atch. River RCI
Recon down South Pass (Pass A Loutre) as far as we could go (~5' mod.), just before branch to North Pass.
- Skies clear, winds 15-20 kts E, seas 1' chop.
Crew: Dave B., Dana W., Gina B., Jim F.

Heading upstream, line
SOL 01C001 1437 (Chirp)
1444 SOL 01B005
Appears to be a reflector at 6ms down 151987 CHIRP - seen in Boomer. 89° 06.9817 29°10.497.

152750 89° 07.5378, 29° 10.4189 v. shallow reflector in seismic. none no show on CHIRP?
153150 deeper reflector nears surface 89°07.8066 29°10.3769 (~9ms)
153550 reflector comes back down (~5ms) 89°08.080 29°10.312

154976 pot. core site. Good reflectors 89°08.7129 29° 10.0969
155850 Chaotic reflectors near surface.

161013 Possible waves at river bottom 89°09.9225 29°09.6229
161750 SOL CHIRP + Boomer. Turning around to re-run seed wave segment w/ sidescan at Southeast Pass

Beginning sidescan transect
SOL 01B006 Boomer 164940
01C002 CHIRP 163936
GS

170640 ~~Ch~~ Shallow chaotic reflectors 89°10.7865 29°09.6294 46° deep.

Maybe take core at 172604 29°09.3088 89°11.5062
and 173040 29°09.2004 89°11.629
represents shore transition from cane to trees - either baselevel or lith. change? Reflectors more chaotic of upstream of divide.

173540 possible sandwaves, ~~[illegible]~~ subbottom reflectors 29°09.057 89°11.7445

Long=89 13.2503
Lat=29 08.4326 Time=18:15:07
Large Sand Waves at Dennis Pass

1902 Completed North Pass. Turning into South Pass.
Sand waves at mouth
19H30 EOL, pulling gear - heading downstream

Starting Boomer/CHIRP lines at south end of yesterday's "sand waves" coverage
SOL 01C003 (CHIRP) 195221
SOL 01B007 (Boomer) 1953
1955 Adjusting course upstream. 201925 CHIRP
Big sand waves between 89°13.2444 29°04.8726 - 89°13.2786 29°4.9216
Near Between inlet - north pier.
Apex @ 89°13.3132 / 29°04.9763 202025 CHIRP (core)
- ~~[illegible]~~ base reflector @ ~6ms below apex

~~[illegible]~~ ↗

! Two huge pos. features at 89°13.5276 29° 05.2265
see seismic @ 202503. Do bathy coverage

more sandwaves / between 29° 05.555 / 89° 13.7417 (203203)
& 29° 5.8385 / 89° 13.9655 (203805)

! Big mound at 29° 05.8604 89° 13.9818 (20383 chirp / 203900 Boomer)
do bathy.

More sand waves (smaller) at 89° 14.3408 29°06.5830 (205203 Boomer)
with basal reflector ~5ms below top of wave (core site?)
Strong basal reflector seen 13 boomer here

Sand waves from 2440210403 89°14.4997 / 29°07.2934 to
210803 89°14.4961 / 29° 07.3945

EOL at Head of Pass 2123

Depth files:

4/26 426, 00_1433.RAW, 00_14517.RAW, 000_1808.RAW
4/27 000_1431.RAW, 000_2054.RAW, 000_2103.RAW.
4/28 000-1444.RAW, 000-1553.RAW.

4/20 Miss. Atch Boomer / CHIRP / Sidescan RCI
In Pass A Loutre (North Pass) doing coverage of channel fill and sand waves (deep), coverage includes area around Southeast Pass near south bank.
Skies clear, winds 10-15 knot N-NE, chop 1-2'.
Crew Keith L., Dana W., Gina B., Jim F.

Boomer 01B008, Chirp 01C004, sidescan?
1659 CHIRP/Boomer heading upstream - with wind.
Fluvial-type reflectors 171724 -
174924 Ran aground upstream of pass.
180754 CHIRP - Chop-(wake) - no sandwaves

turning downstream 18:23:24
EOL Boom, ~~CHIRP~~ 18:23 01B008
SOL BOOM 18:24:24 01B009
EOL CHIRP 18:25:06 01C004
SOL CHIRP 18:25:07 01C005

* raising chirp 18:48:14
raising chirp 18:51:15

* turning upstream Long = 89d 08.95 32m Lat = 29d 10.088m N
18:14:26
EOL BOOM 01B009 19:15:24
SOL BOOM 01B010 19:15:24
EOL CHIRP 01C005 19:16:28
SOL CHIRP 01C006 19:16:28

Atchafalaya Bay Delta

EOL CHIRP 01C006 20:39:00
EOL BOOM 01B010 20:39

5/2/01 - ~½ mile grid across ~~east~~ west Atchafalaya Bay. N.S transects
Water very shallow 3-5'. Seas ½' chop winds
10 kts E. Crew. Keith L., Dana W., Gina B., Jim F.
Boomer / CHIRP / sidescan / Bathy
SOL 01B011 1708 circling at ~~mid-Bay Platform~~
01C007 1708 "SONAT - ATCHAFALAYA - 5097-1"
1820 storm approaches, wind 18-20, seas 1½' chop
recalibrated seismic @ 19:08
EOL 01B011 19:21
01C007 19:21

SOL 01B012 19:21 EOL 2005
01C008 19:21

Southern portion of west bay
SOL 01B013 2100 heading west
01C009
E-W transect shows possible reflector ~ 5-10 ms below
seafloor. ex. 211246 91° 25.8266 29° 25.057
212946 beginning northward turn.
EOL at South bay 2139

798-6301

5/3/01 Miss. Atch. RCI. Boomer/CHIRP/Sidescan.
North Atch. Delta near river.
S-N line to river mouth. Skies clear, wind 15 kts north
Seas 1' chop. Crew Keith L., Dana W., Jim F.
CHIRP 01C010 1626
01B104 162729
Sand waves 165106 (CHIRP) 91° 17.0367 29° 27.3075
172529 at river mouth, depth down to 4', turning ~~south~~ around, south
173429 turning up Deer Is. Bayou
1742 at Deer Is. Bayou. EOL

182436 SOL 01C011 heading downstream Shell Is. Pass
SOL 015015
Boomer 91 18.8931 29 22.2133 183802 Large incised channel
1845 shallows to 7', turn channel-wards
1850 shallows to 5', begin turn around upstream.

91° 16.9346 29° 30.4483 201012 CHIRP, small sand waves.

91 16.8348 29° 30.5285 201302 Boomer Incised valley
202302 move into main river, turning to avoid tug-boat
210502 EOL at ~~begin~~ ~~north~~ top of delta (ties with line 01B104)

Activity ID: 01RCE02	USGS CMG FACS Overview Log
Topic	Information
USGS Activity ID	01RCI02 (2001, Rivers Contaminant Inventory, Leg 02)
Other ID (if any)	
Organization	USGS
Project	?
Area of Operation	Mississippi Delta - Atchafalaya River Delta, Shell Island Pass Delta
Chief Scientist(s)	Jim Flocks
Information Specialist(s)	Gina Brewer
Activity Type	Hi Res Seismic, Chirp, Sidescan
Scientific Purpose/Goals	To characterize nearsurface geology, as it relates to contaminant sequestration.
Platform	R/V G.K. Gilbert
Starting Date	4/25/01 (JD 115)
Starting Port	Venice, LA
Ending Date	5/03/01 (JD 123)
Ending Port	Venice, LA
Equipment Used	Single channel Hi-Res Seismic, Chirp, Side scan and vibra core
Information to be Derived (e.g., Grain Size, Depth to Basement)	Geophysical Data
Summary of Activity and Data Gathered	
Notes	Box: NW: 30° 00.000 N, 92 00.000 W, NE: 30 00.000N, 89 00.000W SW 28 30.000 N, 92 00.000 W SE: 28 30.000N, 89 00.000W WG584

Activity ID: 01RC002

USGS CMG FACS Crew Log

Name	Responsibility	Affiliation
Jim Flocks	Chief Scientist	USGS - St Pete
Dana Wiese	Electronics Technician	USGS - St Pete
Gina Brewer	Geologist	USGS - St Pete
Dave Bennett	Boat Captain	USGS - St. Pete
Keith Ludwig	Boat Captain	USGS - St. Pete

Activity ID:	Ø1RCEØ2	USGS CMG FACS Equipment Log				
Equipment System	Equipment Type	Equipment Code	Equipment Brand	Equipment Model	Equipment Media	Comments
Applied Acoustics	Seismic	BOOM	Applied Acoustics	CSP300	Digital	AA300 plate - 100 T
ITI - ST5	Hydrophone	BOOM	ITI	ST5	Digital	Elics Delph Seismic V.2.10 6m, *phones 3,4,5,6
Edge Tech X-Star	Chirp	CHIRP	Edge Tech	X-Star	Pap/Dig	using SP424 tow-fish running Elics FSSB software V.2.10
Marine Sonics 1200KHz	Side Scan	SS	Marine Sonics	1200KHz	Digital	seascan software V.1.63
Trimble - Centurian	Navigation	NAV	Trimble Centurian	P-code Military Reciver	Dig	
Hy-Pack	Navigation software	NAV	Hy-Pack	V.14.8	Dig	output is supplied to all systems
040 608	Chirp Plotter	CP	040	608	Pap	
Nearspace 448	Depth Meter	D	Nearspace	448	Dig	Depth being saved by Hy-Pack
Rosfelder P3	Electric VC	VC	Rosfelder	P3	N/A	3" aluminum pipe

Activity ID: Ø1 RC2Ø2

USGS CMG FACS Operation Log

Equipment Code	ID	Start Day	Start Hour	Start Min	Start Comment	End Day	End Hour	End Min	End Comment	Depth (meters)
BOOM	01B001	116	14	09	500ms shot, 100ms save 100 Joules	116	17	23	anchoring to fix nav & chirp using Elles Nav Driver UTM 401-1.pln	10 ft 10ft 10ft
BOOM	01B002	116	17	57		116	20	41	using cent_rmc.pln driver	10ft
BOOM	01B003	116	20	43		116	21	42		
BOOM	01B004	117	14	31	500ms shot, 100ms save 100 Joules	116	17	08	NO UTM or Julian bay in Record	
SS		117	14	17		117	17	10		13ft
BOOM	01B005	118	14	44	500ms shot, 100ms save *calibrated seismic @ 14:58	118	16	17	using cent_rmc.pln saving Depth on Hy-Pack	
CHIRP	01C001	118	14	37	248ms shot, 49ms save	118	16	17		8ft
SS		118	16	35		118	19	02		15.5ft changing
CHIRP	01C002	118	16	39		118	19	14		15.5ft
BOOM	01B006	118	16	41		118	19	14		~16ft
CHIRP	01C003	118	19	52		118	21	23		~26ft
BOOM	01B007	118	19	53		118	21	23		~26ft
BOOM	01B008	120	16	59	500ms shot, 100ms save 100 Joules	120	18	23		
CHIRP	01C004	120	16	59		120	18	25		
SS		120	17	01	600kH tow-fish	120			new line every 1000 scans	

Activity ID: 01RCE02

USGS CMG FACS Operation Log

Equipment Code	ID	Start Day	Start Hour	Start Min	Start Comment	End Day	End Hour	End Min	End Comment	Depth (meters)
BOOM	01B009	120	18	24		120	19	15	depth varies	22ft
CHIRP	01C005	120	18	25		120	19	16		22ft
BOOM	01B010	120	19	15		120	20	38		22ft
CHIRP	01C006	120	19	16		120	20	38		22ft
BOOM	01B011	122	17	08	Morgan City	122	19	21		5-8ft
CHIRP	01C007	122	17	08	recalibrated seismic @ 19:08	122	19	21		5-8ft
SS		122	17	05		122	saves	every	1000 scans	5-8ft
BOOM	01B012	122	19	21		122	20	05		5-8ft
CHIRP	01C008	122	19	21		122	20	05		5-8ft
BOOM	01B013	122	21	00		122	21	39		
CHIRP	01C009	122	21	00		122	21	39		
SS		122	21	00		122	21	39		
Chirp	01C010	123	16	28	Shot rate = 125ms; acquire = 33ms	123	17	42	(Ping = 8.14 Hz, Sample = 30 KHZ)	10 ft
Boom	01B014	123	16	28	Recal @ 16:32	123	17	42		"
SS		123	16	28	1200 KHZ	123	17	42		"

Activity ID: Ø1RC3Ø2

USGS CMG FACS Operation Log

Equipment Code	ID	Start Day	Start Hour	Start Min.	Start Comment	End Day	End Hour	End Min	End Comment	Depth (meters)
Chirp	O/c 011	123	18	29		123	21	05		27.3
Boomer	016015	123	18	29		123	21	05		"
S.S.		123	18	27		123	21	05		"