

92G-06

WATCH LOG

ORIG

GULF PROBE 6 92G06

- 17 May 92 0048 dockside - first entry  
 (138) 0300 (2200 local) cast off  
 0400 Science meeting - review plans, schedules, watches  
 0443 ship slowed to dead slow  
 0448 resume speed  
 1329 slowing for streamer deployment  
 ~1346 streamer out, change speed to 6 kts  
 1420-25 starboard ~~stream~~ magnetometer deployed  
 1500 2<sup>nd</sup> magnetometer deployed Both MAGGIES operating  
 APPEAR TO BE MEASURING 3-4 gamma gradient  
 1505 XBT 1  
 2258 Change speed to 6.5 kts  
 2336 TURN OFF MAGGIES FOR NOISE CHECK  
 — FILES NOT IN SYNCH AFTER THIS

18 May  
(139)

0240 GPS - LORANC comparison

0245 begin c/c to 261° @ 3°/min

0300 change turn rate to 6°/min.

0310 end of turn

~0440 GPS > LORANC  
std dev

lat 0.42 .02 ~26°15'N

long 0.25 .01 94°24'W

~~0730Z~~ Begin turn1250 = CHANGE GPS MESSAGES -  
ADD DATE, REMOVE DRIFT

1342 begin turn to next way point @ 9°/min.

1347 turn done

1400 Maggies off to switch sensors &amp; instruments

1445 Port Maggie back on

1500 GPS &gt; LORANC

lat. ~~0.41~~ ± 0.41 ± 0.08Long. ~~0.19~~ ± 0.19 ± 0.04

1545 Maggies Back to Work



GULF PROBE 6

92G-06

- ~1730 Steamer coming in
- 18 May 1804 Steamer on Board, Pulling in the magnetometers
- 1809 Port Magnetometer coming in now
- 1816 Port magnetometer in; Bringing starboard Maggie on board
- 1831 Starboard magnetometer on board
- 1839 Airgun is deployed and in the water at pressure
- 1841 Shot airgun ~~III~~ ~~III~~ times
- ~~III~~ ~~III~~ ~~III~~ I plus many more!
- 1919 Airgun brought on board.
- 1928 Airgun secured - plying port magnetometer
- 1936 Begin slow turn to starboard.
- 1945 Starboard magnetometer streaming & connected - turned on.
- 1955 Port magnetometer streaming and turned on
- ~2020 GPS > LORANC
- lat 0.43
- long 0.16

2230 Having to supply event marks on PDR for time when A delayed by B used.

2300 Time ~~for~~ marks present but partial when A only used (6 sweep program). Generator has drifted?

19 May  
(140)

0431 turn (180) to next leg

0445 XBT #10

0540 GPS > LORANC lat long  
0.58 ± 0.13 0.11 ± 0.01

1130 Z adjusted zero on red Maggie. Cal OK.

1213 Z Zero Adjust both MAGGIES Cal OK.

1253:20 Maggies off for cable switch.

1356 Maggies back on

1428 A & M Maggie shut down for check

1435 Maggies back on



GULF PROBE 6 = 926-06

1445

GPS > LORANC lat-  $0.70 \pm 0.13$  long  $0.05 \pm 0.03$ 19 May '92  
(140)

1551 XBT # 11

1555 Streamer Starling in

1620 Streamer &amp; Maggie's all aboard

1713 Begin deploying air gun #2

1718 Begin firing air gun

1751 Air gun ~~on board~~ out of the water

1752 " " secured on board

1957 airgun test complete

starboard maggie going in  
port

~1830 Streamer deployed.

1838 Maggie's turned on.

2013 XBT #12

~2010 BRIDGE GPS vs. LORANC

lat  
GPS > LC

0.20

 $\pm 0.03$ long  
LC > GPS

0.15

 $\pm 0.01$ 

2100 Retooled Red Maggie.

20 May '92

0023 Sprouts possibly sighted. Turned briefly to check.  
long = 92% lat

GPS vs GPS Bridge vs Lab Trimble

lat. LTr > Br  $0.006' \pm .007$  (~11 meters)long LTr > Br  $0.013' \pm .005$  (~22 m)

0810 - Acoustic Streamer brought in

0821 Both Maggie's turned off

0847 " " secured

Approach 1st OBS drop f/ ~~W~~ to ~~E~~

0942 c/k 090 to approach OBS 1 site



Gulfprobe 6 92G-06

20 May 1002 ~~09~~:03  
OBS 1 away  
10141

23 47.794  
-94 46.097

OAR "A"  
Nor "F" (lowest)

$h = 1963$  uncorr fms

1004 way on for site 2 c/090 s/9.0

1153:44

23 47.586  
-94, 29.009

OBS 2 away

$h = 1991$  uncorr fms

C+D beacons  
(27 MHz)

1156 Way on for site 3

1347 Z Deployment of Station OBS 3

GPS

Lat  $23^{\circ} 47.586$

1346:54 Z

Long  $-94^{\circ} 11.973$

1552 Z Deployment of station OBS 4

GPS

Lat  $23^{\circ} 47.027$

1552:17 Z

Long  $-93^{\circ} 54.890$

1624 increase speed to 10 Kts.

1815 Slow to ~6 Kts, 0.9 nm to station 5



1827:25 on station

Deployment of Station OBS 5

GPS LAT  $23^{\circ} 31.044$ LONG  $-93^{\circ} 38.175$ 

1827:46

2116 OBS 6 away 2116:11

 $23^{\circ} 46.416$  $-93^{\circ} 20.723$ 

connection

 $h = -1991$  uncor fms (1995 fms) ~~detected~~2118 way on for site 7 ~ ~~270~~ 9 kts2120 Changing port armored cable w/ starboard  
for magnetometer electrical connections

2303:00 OBS 7 away

 $23^{\circ} 46.745$  $93^{\circ} 37.626$  $h = -1995$  fms2304 Way on to site ~~7~~ 8.

4

~~2304~~

2347:45

 $24^{\circ} 02.380$ 

OBS 8 away

 $-93^{\circ} 37.467$  $-1995$



0047:46 OBS 8 dropped @  $24^{\circ}02.380'$   $-93^{\circ}37.467'$

21 May 0101 gun in water

0107 first test shot, 2 compressors running.

0126 port maggie starting out

0142 both maggies out.

0151 streamer out, turning to 15 mi N of start point. @ 6°/min

0215 recording on analog monitor

0225 recording on Mac IIx

Ideal speed (SOG) = 4.89 kt

Bvt - keep streamer < 100'

0453 begin turn into line 1

0807 1 mile from the first station to begin shooting to the OBS's

1558 XBT # 16

1602 begin turn to line 2

1610:39 end line 1 on shot 1252

begin line two on shot one SHOT # 1 AT 16:21:19  
AT SHOT # 4 ADD 5 dB GAIN @ SIG AMPS

17:52 Griffiths is resetting the magnetometer data loggers because of a glitch in power.

2125 Begin turn into line 3

2200 Begin Line 3 2130:39

0040 (approx) XBT 17

22 May 0205 XBT 18

0625 XBT 19



22 May

~0815- Airgun stopped firing

~0840 Begin turnaround.

0855 Airgun brought back on board

0905 Splice on the gun may be open  
-repairs under way.1055 Streamed gear to be brought in. While  
gun repairs ~~under way~~ are done, will attempt  
a core, if gun can not be fixed

1117 Magnetometers shut off

1130 All gear aboard. <sup>going to</sup> ~~held~~ station for  
coring. (~ 1-2 mi W of here)

1313 Ship's electrical power went down

1318 Ship electrical power is back

1355 ship underway for gun deployment.

1358 Gun deployed

decided to  
postpone core &  
try more shooting1401:42 first shot; 40 sec rep rate maintained  
immediately1530 NAKAMURA ADVISES TO CONTINUE  
SHOOTING TO 1045 ~~hour~~ SHIP'S HF RADIO  
JUDGED ADEQUATE TO PICK-UP OBS  
RADIO XMIT @ 10 MILES THEREFORE  
WILL SHOOT PAST OBS#3 ABOUT  
2-3 MILES TO SURVEY-IN SITE AND  
THEN PULL AIRGUN AND PROCEED TO  
OBS SITE #1



1AY

1543 stop shooting

1547 Air gun on board the ship.

1551 c/speed 27.9 @ 9kt - full scan for DSDP 90 to pick up OBS 1

AT PICK UP SITES - RECORD  
(WHEN OBS comes out of the water)

Time (nearest second)  
Location (GPS Lat & Long)  
water dept (3.5 kH)

17:16 XBT-20

1800 OBS #1 at surface (radio heard)

1815 " " @ 5.5 miles  
BEARING 270°

1828 Maggies turned off.

1835 Port Maggie Secured on deck

1847 Starboard Maggie " " "

1904: <sup>06</sup>~~15~~ OBS 1 coming out of water

Lat 23 46.479  
Long 94 46.479

1920 wave field surfaces

1921 UNDERWAY @ 10 KTS For OBS #2 PICK-UP  
SCHEDULED SURFACE TIME 1550 Z

20:58 OBS 2 visually acquired.

21:05:45 OBS 2 on board, position

23° 46.667N

094° 29.471 W



22 MAY 92

~~2108 UNDERWAY @ 10 Kts for OBS Pick-up # 3~~  
~~SCHEDULED SURFACE TIME 1835Z~~

2108 Way on ~~at~~ @ 10 kts for OBS site 3  
 Scheduled surface time 1835L

2346 OBS on deck

23 46.606 -94 12.449

23:46:37

2348 <sup>GETTING</sup> Way on for OBS site 4 @ 10 Kts

23 May 0130 on sta. waiting for OBS 4 (released 15m ago; due up in 50 min)  
 (144) 0150 Chief Sci moves us to 1.5 mi SW of site.

0230 OBS 4 - (The) radio is not functional  
 it will be located visually. (No transmission received)

0238 OBS-4 Secure at: Lat.  $23^{\circ} 46.853$   
 Long  $93^{\circ} 55.168$  (GPS)

0241 <sup>getting</sup> underway for OBS 5

and steel strap broken, radios  
 in the water = no transmission

05:54<sup>2</sup> OBS 5 on surface

06:12:36 OBS 5 attached to ship at

$23^{\circ} 31.437 N$

$093^{\circ} 37.950 W$



23 May 92

09:23:44 - OBS on board. Position:

23° 47.404 N

OBS #7

093° 37.791 W

1153 OBS site 8 on deck

24 02.910

93 38.199

Novatech beacon flooded.

1155 Getting ~~way~~ on weight on (?!)

to OBS 6

7.8 kts

133°

1536 OBS - Station # 6 on deck

GPS:

Lat

23°

47.094

Long

93°

20.856

1545 CORE OVER THE SIDE

1546

TRIGGER WEIGHT ATTACHED.

1554

CORE #1 START DOWN

23° 47.344' N

TRIMBLE GPS.

93° 20.753' W

1600 PINGER ON 51' M ABOVE CORE HEAD

CORE IS 45 feet HEAD-CUTTER

1601 GOING DOWN.



23 MAY 1992

- 1615 941 m and ~~not~~ going down
- 1616 942 m WINCH STOPPED LEVEL WIND BROKE!!
- 1620 Winch is working, going down
- 1621 1000 m depth
- 1628 1500 m depth
- 1630 winch stopped at 1668 m.
- 1633 winch start, going down.
- 1638 2000 m depth
- 1644 winch stop at 2400 m depth
- 1650 start again at 2401 m depth
- 1657 3000 m depth.
- 17~~20~~03 3500 m slowing at 50 m/s
- 17~~20~~05 3600 m slowing to 20 m/s
- 17~~20~~17 3927 m, Pinger is about 100 m above sea floor
- 17~~20~~20 3985 wire pinger on sea floor  
TRIP!! PINGER LEFT ON BOTTOM  
WIRE CLAMP FAILED!!
- 17~~20~~26 3500 Wire is coming up



23 May 92

17:29 3000m core on way up

17:36 2000m

17:40 1500m

17:43 1000m

17:46 500m

17:48:30 200m

17:49:20 100m

Core on board at 18:10:30

Confirmed finger lost

18:15 Underway - Deploying magnetometers

18:30 Magnetometers on-line

18:45 Streamer Deployed

20:23 Reached Way point 2, starting to turn

24 May

(145) 0500 Turn to direct line to Port Isabel

1438 circling back to 'whale' sighting

1457 turning back toward Port Isabel

1510 turn completed

1931 Streamer secured on board

2000 Magnetometers secured

2200 WATCH SECURED GYRE

END LEG 1 ~~GYRE~~ CAUSE 92G-6

23:55 secured at the Dock - Port Isabel



906 - C

GULF PROBE C

LEG 2

25 May 1992

0930<sup>L</sup> leaving dock Port I0951 L Coring site set at  $24^{\circ} 37.7' N$   $95^{\circ} 26.4' W$ 1016<sup>L</sup> leaving jetties. ~~ASSE~~

1045L Starboard maggie deployed.

1050L Port maggie deployed.

1059L = 1559Z maggies on &amp; recording

Z↓

1819 c/speed to 5 Kt.

slowing due to engine overheating

1822 return to 7.5 Kt.

1830 c/speed to 5.7 Kts.

1832 return to 7.6 Kts.

Remain slowed for a while to solve problem

1842 increase speed to 9.9 Kts stabilized at about 10.6 Kts

0328 CSE A to  $1162^{\circ} E$ 0415 maggies ~~off~~ turned off0420 port maggie <sup>starting in</sup> ~~secure on~~ board.

slow to 6 Kt.

0426 slow to dead slow

0427 port maggie Secure on board

0437 Starboard " " " "

0437 Coring Station #2 1791 ~~1710~~ fms.

0449 hdg 157.7

0450 core #2 ~~hit~~ <sup>trough</sup> over the water  
GPS  $24^{\circ} 38.622$   
 $-95^{\circ} 26.711$ LORAN C  $24^{\circ} 38.08$   
 $-95^{\circ} 26.56$ 

0455 trigger wt. over side.

GPS  $24^{\circ} 38.54$  $-95^{\circ} 26.05$ Loran  $24^{\circ} 37.94$  $-95^{\circ} 26.49^{\circ}$ 

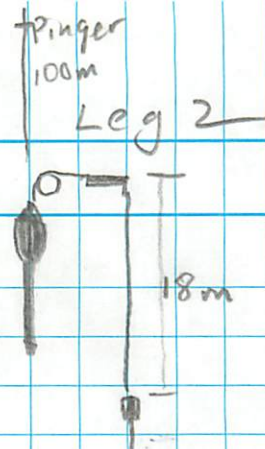
0501 Moving core down to attach pinger



925-6

bult Probe 6

014



0504 Attached pinger at 100m

wire rate 60 m/min

0513 395 m out

0516 500 m out

0525 1000 m out

~~0529 crossing on record~~

0532 1500 m out

0539 2000 m out

0547 2500 m out

0554 3000 m

0605 3500 m

0613 <sup>1st attempt</sup> stopped; going back up.0616 going back down  
<sup>2nd attempt</sup>

0619 going back up - No hit seen by Winch

24° 38.17  
- 95 24.37

Loran C

24 38.603  
- 95 24.516

GPS

0659 Pinger on the surface

0706  
≈ 0720Trigger arm at surface - ~~core~~ <sup>trigger</sup> tripped  
core on deck

0724

Power went off for about 45 seconds

0738  
≈ 0745deploying magnetometers - Starboard first  
- then port



26 May

0807 Maggies turned on &amp; recording

0911 Finished Rigging Core, Increased speed

147J. 0915 The beginning of wavefield

1017 Ship slow down to 6 km

1025 back to 9 km

1344 A CSE ~~20~~ 2°E

1424 maggies turned off

1432 port maggies Secure on deck

1433 starboard maggies "

~~1433~~ 1449 Slow to dead slow

1450 coring station #3 1966 fms

1507 core lowered

GPS. N 23° 47.53  
W 94° 46.059Loran 23° 47.15  
- 94° 45.86

1511 attached pinger at 118 m

1523 500m out

1528 crossing on record. 4 sec

1531 1000m out

1538 1500m out

1540 crossing on record 3 sec

1546 2000m out

1553 crossing on record 2 sec

1554 2500m out



926-6

Gulf Probe 6

Leg 2

016

- 1600 3000m out
- 1604 Crossing on record 1sec
- 1608 3500m and stopping
- 1610 resume lowering
- 1615 reduce to 10m / minute
- 1621 hit, going back up  
GPS  $23^{\circ}47.625$   
 $-94^{\circ}46.098$   
Loran  $23^{\circ}47.15$   
 $-94^{\circ}45.93$
- 1636 power down for 15 seconds  
winch down, ~~reset~~
- 1648: Stop lowering; working on level wind.
- 17:17 ~1700 m of wire
- 1724 ~800 m of wire out
- 1732 ~550 m to the pinger (from PDR)
- ~1744 Pinger at surface
- 1758 Core at surface
- ~1810 core at surface
- 1822 c/c to ~~stay~~<sup>get</sup> on station
- 1838 underway to station  $084^{\circ}$  @ 5.6 Kts
- 1913 On station



926-6-2

26 May 92

Gulf Probe 6

017

## Heat Flow Station 1

1917 - tilting Probe above water  
 1920 now back on deck

1925 - Probe in water 1983 fm 3717 m depth  
 & going down

1929 Pinger attached @ 100m

1944 - 1000m out

1949 - 3 sec crossing

1952 2000m out

1956 2 sec crossing

2001 3000m out

2004 1 sec crossing

2009 3700 out

2010 3850 out Probe stopped  
 85 m above bottom

2014:34 Starting down

3958 m out

2015:30 in the bottom

GPS 23 46.953 N  
 94 42.292 W

23 46.49' N  
 94 42.15' W

2021:46 ~~2021:46~~ probe turns on

Wire angle 2° to starboard

2028:45 winch started in

3978m

2030 time of pullout



92G-6-2

26 May 92

Gulf Probe 6

018

Position at pullout

Loran C  
 23° 46.33 N  
 94° 42.21 W

GPS  
 23° 46.817 N  
 94° 42.400 W

head to the North West & pull up probe  
 to 1000 m from surface

2040Z RESET GRAVITY METER SPRING VALVE

	SCREEN	DIAL	
WAS:	10182.3	10183.2	0.9 DIFF.
NOW	10183.2	10183.2	—

2104 winch stopped

2129 (200 m.)

1633L Pringer is coming to deck

2133 Pringer aboard

2146 Prob aboard for check-out

~~2146~~  
 2329 Changing course to 180°

2340 Course 180° (Loran-C) 11.1 km

1148J 0204 Δ CSE to 090° 10.8 kts

1100 Changing Course to 0° HDG North

1109 Heading North towards site 91



92G-6-2

27 May 92

Gulf Probe 6

019

1335 Maggies off.

1342 Port Maggie Secured on board.

1354 Starboard Maggie "

1357 reduce Speed to dead slow.

1401 On Station for pressure testing of heat probe

1412 Heat probe in water  $\approx 1995$  fms

1422 1000 m out.

1432 2000 m out.

1441 3000 m out

1450 testing.

1500 begin recovery of probe

1511 2000 m to surface

1520 1000 m to surface

1524 500 m to surface

1528 100 m to surface

1531 Probe at surface

1537 Probe secured on deck

1544 Heading SW. to Core station #4

1630 Core station #4

1634



92-G-6-2

Gulf Probe 6

27 May '92

020

1634 core at surface 1995 fms. 3730m

1645 ~~at~~ Core begins descent

1649 stop for pinger attachment 118m

1652 resume descent

GPS  
23°45.86  
93°20.547Loran  
23°45.50  
93°20.32

1659 500m out

1705 1000m out

Bottom profile went out  
discovered lost pinger

1713 1575m out

increased gain

1719 2000m out

1724 2 sec crossing

1725 2500m out

1731 3000m out

1734 1 sec crossing

1737 3500m out

1741 stop at 3700m

1743 250m off bottom (from PDR)

stopped at 215 &amp; changed rate

1750 125m off bottom

1751 triggered



92 G-6-2

Gulf Probe 6

27 May 92

021

@ 1751 when triggered

Loran C

23° 46.12' N

93° 20.73' W

GPS

23° 46.377' N

93° 20.912' W

1804 = 3000 m of wire out

1814 2000 m of wire out

1823 1000 m of wire out

1829 300 m to the pinger

1832 Pinger at surface

1839 Core at surface

1900 Core Secured

1955 Probe above water surface

2000 attached pinger - taking a while to attach it

2004 pinger attached - on its way down

3730 m water depth

Location when dropped

GPS 23° 48.748' N  
93° 21.483' WLoran C 23° 48.43' N  
93° 21.26' W

2014 1000 m out

~~2016 4 sec crossing~~

2023

2010 wire stopped  
Lost signal from instrument  
AGAIN



926-6-2

Gulf probe 6

27 May 92

2036 1000m to go

2040 500m to go 400 to pinger

2046 pinger at surface

2053 probe at surface

2144

Began acceleration to unknown waypoint

2149

Steam S. at  $155^\circ$  to  $23^\circ 44' N$  +  $93^\circ 18' W$  at  
starting point of Maggie survey Line (7.6 kt)  
Heat flow pressure test then start survey

2305 Slowing to test heat flow probe

0020 Heat flow pressure <sup>casing</sup> ~~gadget~~ lowered into  
water for testing~~0112~~ 0115 ~~1000m to surface~~ 3000 meters: stop.  
remain for 5 minutes.

0120 begin recovery of probe casing

0135 1000m to Surface hold for 5 minutes

0140 Go down to 3500m

0245 3500m and holding for 5 minutes

0249 begin recovery of probe casing

0258 3000m to surface

0305 2500m to surface

0316 1500m to surface

0321 1000m to surface

0322 Casing on board and secured.



926-6-2

Gulf Probelp

27 May 91

023

0334 Commence CSE 000° N to put  
out mags. spd. 5 knots

0344

~~0339~~ Starboard maggie out.

0358 port maggie out.

~~03~~ 0402 maggie turned on

0403: increase speed to full power  
to way pts:

1.) 24° 36'  
93° 18'

2.) 24° 36'  
93° 27'

then south to: 23° 42'  
93° 27'

0842 c/c to 270°

0914 Slow down for a ship to Pass...

0957 XBT # 21

~0948 c/c to 180

1124 EPC stops - turned off and

turned on - back to normal recording

1550

Δ CSE to 080° E @ 10°/minute

1603

~~1630~~ Turn complete

~~1640~~

reduce speed to 6 kts.

1613



92G-6-2

Gulf Probe

28-May 92

024

1613 Maggies turned off  
 $\Delta$  CSE to  $090^\circ\text{E}$

1620 Port Maggie Secured on deck

1631 ~~Port~~ Starboard Maggie secured on deck

1636 Determining drift

1646 Steaming due East ~~to~~

1656 on location Stop to dead stop.

GPS	$23^\circ 43.707$	Loran C.
	$93^\circ 20.043$	$23^\circ 43.40$
		$93^\circ 19.80$

1703 Rigging Heat Flow Probe

1706 Probe entered water

GPS	$23^\circ 43.904'$	$23^\circ 43.64'$	Loran C
	$93^\circ 20.049'$	$93^\circ 19.86$	

1714 Pinger attached

1722 1 sec crossing

1723 1000m out

1728 3 sec crossing

1732 2000 out

~1735 2 sec crossing

1741 3000 out



92G-6-2

Gulfprobe 6

28 May 92

025

1744 1 sec crossing

1749 3750m of wire when stopped

1751 going out another 100 more

1752 3850m of wire when stopped  
move down another 50 m

1755 3900 m out &amp; stopped

1800 In the bottom

GPS 23° 44.743  
93 20.479Loran C  
23° 44.38  
93° 20.479Wire reading when stopped 4010m  
let more wire outheater pulse ~~that was on~~ did not  
turn on

1809 Pull out probe - 4080m of wire

1812 Pulled out of bottom 4045m

1824 1 sec crossing

1828 3000m out

1833 2 sec crossing

1839 Stopped at 2000m of wire



92-G-6-2

Gulf Probe 6

28 May 92

026

1847 Probe descends from 2000m of wire

GPS  $23^{\circ}45.265'N$   
 $93^{\circ}20.747'W$ Loran C  $23^{\circ}44.97'N$   
 $23^{\circ}45.265'W$ 

1852 2 sec crossing

1857 3000 m out

1900 1 sec crossing

1904 3700 m stop

put out another 200 m of wire

1908:08 3900 m of wire stopped

Probe stopped at 85 m

1912:52

Probe lowered

GPS

 $\downarrow$   $23^{\circ}45.574'N$  $93^{\circ}20.884'W$ 

Loran-C

 $23^{\circ}45.25'N$  $93^{\circ}20.70'W$ 

1914:10

On the bottom

1915

4060 m of wire when stopped

1916

5 m of wire let out

1917

another 5 m let out

1919:50

another 6 m let out

1922

let out another 5 m

1922:56

start up slowly

GPS

 $23^{\circ}45.674'N$   
 $93^{\circ}20.945'W$ 

Loran C

 $23^{\circ}45.39'N$   
 $93^{\circ}20.945'W$



92G-6-2

Gulf probe 6

28 May 1992

027

1938

3500 m of wire out  
Stopped at 575 m off bottom from pinger

1944

let down again another 400 m  
water depth  $\approx$  1995 fm or 3730 m

1948:40

3900 m - stopped above bottom

1953:32

going down

1955:00

Probe in bottom

GPS
23°46.018'N
93°21.106'W

Loran C
23°45.77'N
93°20.94'W

1956

4070 m when stopped  
let out another 5 m

2000:35

let out another 5

2003

start up

2006

pullout

GPS
23°46.142'N
93°21.173'W

Loran C
23°45.83'N
93°20.95'W

going up to 2000 m below surface

2021

3000 m out

2029:54

2200 m of wire &amp; stopped

2036

Probe descending

GPS
23°46.564'N
93°21.348'W

Loran C
23°46.18'N
93°21.11'W



Time  
2043 3000 m out

2051 3700 m out

2053:20 3900 m out

2058:54 going down

2100:11 entered bottom

GPS  
23° 46.809' N  
93° 21.422' W

Loran C  
23° 46.48' N  
93° 21.21' W

2108:30 bring out slowly

2112:56 pullout from bottom

GPS  
23° 46.879' N  
93° 21.428' W

Loran C  
23° 46.59' N  
93° 21.24' W

~~2152~~ 2152 1000 m out

ready to steam & get out of  
trough

2302 Slow down to begin with another  
heat flow measurement

2310 Pinger failure - start bring probe IN

2330 Probe on Surface

2338 Probe on Board - Holding course until  
instruments are in Lab.

2340 Deploying magnetometer's sensors.

2345 Change to Westward Direction



92G-6-2 Gulf Probe 6

28 May 92

029

2357 ~~RESET~~ MAG LOGGER CLOCK (Port & Starboard)

2358 Magnetometers on

Cruise plan :

At

93° 27' (Turn to)  
23° 47' 180°

To

93° 27' Turn  
22° 56' West 270°

93° 36'

22° 56'

93° 36'  
23° 49'29 May 92

0540 c/c to 270°

0544 XBT # 23

0624 c/c to 000°

0650 c/crs 125°

1205 Turn ~~off~~ the magnetometers, off

1220 Maggies on board

1251 Reaching the Heat Probe site

-1300 adrift NW ~ 300 &lt; 1 kt.



92G-6-2

Gulf Probe 6

29 May 92

030

1313 Probe in water hps 23° 42.991  
93° 25.272

Loran

23° 42.64

93° 25.07

1320 Pinger attached

1328 4 sec Crossing

1329 1000 m out

1335 3 sec. Crossing

1339 2000 m out

1343 2 sec Crossing.

1349 3000 m out

1352 1 sec Crossing.

1357 3700m full stop

1358 Another 200m ~~stop~~

~~1400~~ 1400 3900 m stop.

1404 Going down

1405 entering bottom

penetration #1  
GPS 23° 43.114  
93° 25.759

1413 Heater pulse not coming on  
come out of bottom? 5m/minute.

1424 Pull up ~~to~~ 500 m, drift for 5-10 minutes

1432 3500m out.

1450: Heat Flow Station # <sup>3</sup> ~~4~~ GPS: 23° 43.417  
93° 26.142



- 1458 Begin lowering probe
- 1459 Slowing
- 1500 3850 m go to 3900m
- 1501 3900m full stop.  $23^{\circ} 43.496$   
 $-93^{\circ} 26.171$
- 1504 Probe entering bottom.  
 water depth 3730m
- 1508 10 more metres out
- 1508 1509 stopping 4050 out
- 1513 additional 5 metres
- 1516 begin pull out
- ~~1520~~ pull out. up to 3500m 10-20 minutes  
 1520 of drifting.
- 1523 ~~1623~~ drift N/NW to next station
- 1529 ~~1629~~ All stop 3500m  
 Penetration 3
- 1532 ~~1652~~ ~~Location #~~ GPS  $23^{\circ} 43.007$   
 $-93^{\circ} 26.545$
- 1557 ~~1657~~ 3900m begin descent
- 1601 ~~1701~~ Probe enters bottom
- 1603 ~~1703~~ Stop 4043 wire meter reading.
- 1606 ~~1706~~ Another 5 metres out
- 1607 ~~1709~~ Begin pullout



1609  
~~1709~~

Begin pullout.

1714  
~~1614~~

Pullout complete

pull up to 3500m

Drift N/NW to next site.

GPS 23° 43.934  
93° 26.4931622  
~~1722~~

Full stop. 3500m - drift.

1651  
~~1751~~

Station 3/4

lowering to 3900m

GPS 23° 44.239  
93° 27.107

Penetration #9

1656

~~1756~~

3900m all stop

Loran C  
23° 43.90'N  
93° 26.88W

1700

going down

1701

4005m out when stopped

let out 35m

let out another 5m

GPS 23° 44.322  
93° 27.205

1705

let out another 5m

Loran C  
23° 43.97'N  
93° 26.98'W

1708

Start up again

1711

out of bottom -

Loran C  
23° 44.01'N  
93° 27.04'WGPS 23° 44.419  
93° 27.308

1745

lowered again

GPS 23° 44.691  
93° 27.514

Station 3 #5

Loran C  
23° 44.47'N  
93° 27.38'W



926-B-2

Gulf Probe 6

29 May 92

033

1750 Stop above bottom

1754:27 starting down again

1755 hit bottom

GPS

 $23^{\circ}44.806'N$  $93^{\circ}27.622'W$ 

Loran C

 $23^{\circ}44.44'N$  $93^{\circ}27.40'W$ 

1801 let out 5 m of wire

1809 Probe pulled out

GPS

 $23^{\circ}44.895'N$  $93^{\circ}27.725'W$ 

Loran C

 $23^{\circ}44.44'N$  $93^{\circ}27.40'W$ 

~1814 pulling up &amp; then steaming

~~2000~~<sup>1832</sup> 2000 m out

1842 all stop @ 1000

1849 starting to steam @  $312^{\circ}$ 

1909 all stop for PROBE STATION

1915 Probe lowered For Station 3 #6

1924 2000 m out

1934 3000 m out

1942 3700 m out & stopped  
let out another 180 m



92G-6-2

Gulf Probe 6

29 May 92

034

1947<sup>1363</sup> 900 m out stop.

1952 going down again

1953 Probe entered bottom

GPS	Loran C
23° 45.679N	23° 45.36
93° 28.742W	93° 28.54

2000 Pull up probe

2006 pulled out of bottom

going up to 1000m.

GPS
23° 45.586
93° 28.800

Loran C
23° 45.27'N
93° 28.61'W

2018 3000 m out

2028 2000 m

2039 1000 m

2046 underway to NW

2045 Echosound transceiver has problem and data is scattered

2143 Probe starting down - Station 3, Penetration 7

GPS

23° 46.525 N

93° 30.686 W

Loran C

23° 46.14'N

93° 30.48'W

2152 2000 m

2202 3000 m

2213 3900 m



92G-6-2

Gulf probe 6

29 May 92

035

2219 probe hit bottom

GPS  
23° 46.631' N  
93° 31.134' WLoran C  
23° 46.28' N  
93° 30.93' W

2226 Winch started in

2230:50 Probe out of bottom

GPS  
23° 46.698' N  
93° 31.236' WLoran C  
23° 46.41' N  
93° 31.03' W

2302 probe started up - batteries weakening

2321 2000 m

2330 1000 m

2340 Pringer outboard

2349 Heat probe on deck

2357 Headed towards Waypoint 1 23° 44' &amp; 93° 36'

0000 30/may/92

0008 First Maggie is flying

0017 Second Maggie is out.

0045 Heading northward



# Gulf Probe 6 29 May 92

0400 - Way points.

i)  $24^{\circ} 36'$   
 $93^{\circ} 30'$

ii)  $24^{\circ} 36' N$   
 $93^{\circ} 45'$

iii)  $23^{\circ} 42' N$   
 $93^{\circ} 45' W$

Then go to core station on seismic line

at  $23^{\circ} 46.6' N$   
 $93^{\circ} 41' W$

0530 c/c to  $270^{\circ}$

0620 c/c to  $180^{\circ}$

1222 c/c to  $40^{\circ}$

1238 start to recover the maggies,  
magnetometer off

1252 Maggies on board

1302 Slowing speed and steaming towards Coring site.

1315 On Coring station #5

~~1315~~

RPO:  $23^{\circ} 46.569$   
 $93^{\circ} 40.882$

Loran  $23^{\circ} 46.08$   
 $93^{\circ} 40.73$



1318 - Core descending. 1996 fm.

13 - Attach finger 100 meters.

1339 1000m out

134#? 3~~4~~ second crossing.

1346 1500m out

1353 2000m out

1354 2~~8~~ second crossing

1359 2500m out

1411 3000m out

1417 12~~8~~ second crossing

1419 3500m out

1424 ~~370~~ 3750m out

1428 3900m out Stop, start down slowly

1429 3930m out

1433 3972 hit bottom. Locn: 23° 46.58  
-93° 40.39

1434 Starting of

1440 3500m from surface

1444 3000m from surface



- 1450 2500 m to surface
- 1459 2000 m to surface
- 1459 1500 m to surface
- 1503 1000 m to surface.
- 1508 500 m to surface
- 1516 finger at surface  
removing it.
- 1524 Trigger @ surface
- 1532 Core up  
Drift to determine currents
- 1600 Determine drift to be N/NE
- 1603 Continue to drift
- 1608 Steaming 2 miles South to start  
station.
- 1623 On station Heatflow station #4 Penetration #1  
GPS:  $23^{\circ}44.901$   
 $93^{\circ}39.973$   
Loran  $23^{\circ}44.57$   
 $93^{\circ}39.80$
- 1633 Probe in water
- 1636 Attaching finger at 100 m of wire out.
- 1648 4 second crossing
- 1650 1000 m wire out



92606.

Gulf Probe 6

30-May '92

039

1656 3 second crossing

1659 2000m of wire out

1709 3000m out

1716 3700m stop

1719 3900m  $\neq$  stopped~~1719:03~~

1724:03 dropped again

1725 probe entered

GPS

23° 45.565

93° 40.129

Loran-C

23° 45.21N

93° 39.92W

1733 Winch started in

1739 pulled out

GPS

23° 45.655

93° 40.177

Loran C

23° 45.41N

93° 40.00W

bring up and stop 3500m

drifting

1815 start down again

1920:30 3900m stopped above bottom



926-6-2 Gulf Probe 6

30 May 92

040

1824 heading down

1826 in the bottom

GPS  
23° 45.906 N  
93° 40.288 W

Loran C  
23° 45.54 N  
93° 40.04 W

1839 out of bottom

GPS  
23° 45.956 N  
93° 40.269 W

Loran C  
23° 45.70 N  
93° 40.12 W

~~1845~~ bring up to 3500m

1915 On station & lowered

Loran C 23° 45.72 N  
93° 40.13 W

1920 3900m & stopped

1925 going down

1926 in bottom

GPS  
23° 46.154 N  
93° 40.398 W

Loran C  
23° 45.76 N  
93° 40.19 N

1934 Winch started in

1939 out of bottom



92G-6-2

Gulf Probe

30 May 92

041

~~LORAN~~ Loran C

23° 45.88' N

93° 40.28' W

~~LORAN~~ GPS

23° 45.237' N

93° 40.509' W

bring up to 3500m and drift

1948

all stop 3500m

on station

2014

going down to 3900m

LOR 23° 45.97' N

93° 40.54' W

2019

stopped at 3900m

2024

going down

2026

In bottom

GPS

23° 46.414' N

93° 40.796' W

LORAN C

23° 45.94' N

93° 40.55' W

2034

bring it on up

2039

pulled out

GPS

23° 46.459' N

93° 40.929' W

LORAN C

23° 46.12' N

93° 40.71' W

pulled up to 3500m & drift  
for 30 minutes

2048

all stop at 3500m



92G-6-2

Gulf Probe 2 30 May 92'

042

2114 go down to 3900m

2119 Time at stop above bottom - 3900 m

2123 Probe is going down to bottom

2124 Probe entered bottom

Loran-C

23° 46.36

93° 41.16

GPS

23° 46.6446

93° 41.3406

2132 bring the probe on up

2136 Probe pulled out

Loran-C

23° 46.36

93° 41.24

GPS

23° 46.7083

93° 41.4304

Pulled up to 3500 m & drift for  
30 minutes2215 take it down to 3900m  
to begin with heatflow  
station 4, penetration 6



2221 On station HF 4.6 75 m above sea floor

2226 Probe entered bottom

Loran-C

23° 46.65

93° 41.81

GPS

23° 46.4247

93° 41.9646

2235 Winch started in

2237 Time on pull out

Loran-C

23° 46.67

93° 41.88

GPS

23° 46.9651

93° 42.0625

2308 Changed Bathymetry Paper - last mark at 2245

2210 Changed paper in Loran Printer

2355 PROBE aboard begin transit to next survey line  
(93° 45' W) @ 6 kt.

0000 31 May 1992

0001 Maggies are being deployed

0003 MAGGIES ON

0020 On the Survey line, 180°, 9 kt.



926-6-2 Gulf Probe 6

31 May 1992

044

0030 Slow down to 6 knots for  
engine oil change  
0040 resuming speed

0200 Way pts.

i)  $22^{\circ} 56' N$   
 $93^{\circ} 45'$

ii)  $22^{\circ} 56'$  change at 05 56  
 $93^{\circ} 54'$

iii)  $23^{\circ} 49'$   
 $93^{\circ} 54'$

@ 0800 L

→ Probe site ~  $23^{\circ} 46.5'$   
 $93^{\circ} 49.0'$

change

0641

#### CORES:

WIRE OUT VS PDR depth

1	<del>220</del> 211	6	232
2	303	7	230
3	210		
4	220		
5	229		

@ 414 slowed & change fuel filters on starboard  
main engine  
~0420 under full speed

1154 We reach way point.

1156 Magnetometers off,

1158 Turning South to  $180^{\circ}$

1200 Recovering the Maggies

1216 Maggies on board.

1222 slow down to



1230 Heading towards  $(23^{\circ}43.5, 93^{\circ}49.0)$

1325 ~~Arriving~~ <sup>Arriving</sup> way point,  
On Heat probe station \* 5

Location  
 $23^{\circ}43.25$   
 $-93^{\circ}48.88$

1334 Probe in water

1335. Attach pinger @ 100 m of wire out.  
 1995 m 3593 m

1344 Pulling pinger off.

1349 Probe at surface

1351 Probe on board. Unrecoverable pinger.

1357 Holding station for probe repairs

1512 Probe in water

1514. Attach pinger @ 100 m of wire out

1517 Going down.

1520 4 sec crossing

1522 1000m out

1533 3 sec crossing

1537 2000m out.

1542 2 sec crossing

1547 3000m out

1550 1 sec crossing

1557 Slowing

1558: All Stop 3900.

1607 4080 Stop Enter

1609 Another 5 meters

GPS:  $28^{\circ}45.092$   
 $-93^{\circ}48.176$   
 Location:  $23^{\circ}44.68$   
 $-93^{\circ}47.97$



926-6-2

Gulf Probe 6 31 May '92

046

- 1613 Starting up slowly
- 1617 Pullout 4041 m wire out
- 1618 Coming off bottom, go to 3500 m and drift 30 minutes
- 1628 3500 all stop  
Drift N/NW
- 1646 Heat Probe Fired!! (at 3500 meters of wire!)
- 1652 - Start down to 3900 m wire out.
- 1658 Stop at 3900 m. GPS  $23^{\circ} 45.488$   
 $-93^{\circ} 48.436$
- 1703 entered bottom
- |                        |                       |
|------------------------|-----------------------|
| GPS                    | Loran C               |
| $23^{\circ} 45.541' N$ | $23^{\circ} 45.17' N$ |
| $93^{\circ} 48.480' W$ | $93^{\circ} 48.27' W$ |
- 1719 Heater pulse went on
- 1724 Winch started in
- 1733 Pulled out of bottom
- |                     |                       |
|---------------------|-----------------------|
| GPS                 | Loran C               |
| $23^{\circ} 45.775$ | $23^{\circ} 45.48' N$ |
| $93^{\circ} 48.640$ | $93^{\circ} 48.44' W$ |
- ~~1741~~ 1741 Stop at 3500 m
- 1741 let down again -100m



026-6

Gulfprobe 6

31 May 92

047

1751 3600m stopped

1802 back up to 3500m

1805 move to 3900m

1810 stop at 3900m

1814 let down again

1816' in the bottom

GPS  
23° 46.088' N  
93° 48.869' WLoran  
23° 45.80' N  
93° 48.71' W

1823 let out 5m

1825 let out 5m

1828 let out 5m

1830 let out 5m

1831:58 let out 5m

1831:57 heater pulse on

1833 let out 5m

1835 let out 5m

1837:57 bring it up slowly

1841 pulled out

GPS  
23° 46.303' N  
93° 49.049' WLoran  
23° 45.89' N  
93° 48.82' W

1846 completely off bottom



92G-6-2

Gulfprobe 6

31 May 92

048

1854 stopped at 3500m

1903 down 100m

1905 3600m all stop

1915 down another 50

1916:58 3650

1927:11 3900 stop

1931 Full speed down

1932:30 hit the bottom

GPS  
23°46.680'N  
93°49.329'WLoran  
23°46.37'N  
93°49.18'W

1936 let out 5m

1937 let out 5m

1948 heater pulse turned on

~ 1954 bring it up

~~GPS~~ Loran  
23°46.53'N  
93°49.42'WGPS  
~~Loran~~  
23°46.878  
93°49.564

2013 stopped at 3500m

2022 let down 100m

2024 3600 stop

2031 going down to 3900

2035 all stop 3900

2040 going down to bottom

2041:40 Probe in bottom

2056 Heater pulsed Turned on

2103 winch started in



92 G-6-2 Gulf Probe 6

31 May 1992 049

2105 pull out Heat probe

COURSE/SPD

~ 2130 Heat probe on station 5, penetration 6

2140 time at stop above bottom

2146 Probe entered the bottom

Loran C

23° 47.39

93° 50.14

GPS

23° 47.7948

93° 50.3357

~ 2200 battery fail. heat probe recovering

2205 Winch failed - "O" ring hydraulic leak

2317 Winch is working pulling the heat probe

~ 2355 Pringer on deck

0005 Heat Probe on deck

0013 Deploying the maggies

0029 Maggies are streaming

0050 Power Failure

0100 Begin 180° turn to the NORTH

0102 Power failure. -

0103 Power on

XBT #25 23° 49' 13" Down  
0014Z 93° 52'

Way Points

i) 24° 36'  
-93° 54' toii) 24° 36'  
-94° 03' toiii) 24° 42'  
-94° 03'



92 G-6-2

Gulf Probe 6

1 June 1992

050

0622 YBT 24  $24^{\circ}30'N, 93^{\circ}56'W$ 1300 Approaching ~~Heat Probe Site~~. Final way pt.1323 ~~Turn~~ Turn due east and head for  
 $\approx 93^{\circ}58.5'$ 

1325 Turning off maggies. Slow to 4 knots.

13<sup>34</sup>~~24~~ Port maggie on board.

1343 Starboard maggie on board.

1344 Steam 2 miles E to  $93.59'$ 1354 Stop to dead stop  $\frac{1}{2}$  and drifting to determine drift.1400 on station #6.  
rigging heat probe

GPS: $23^{\circ}41.45$
- $93^{\circ}51.07$
Loran $23^{\circ}41.27$
$93^{\circ}58.38$

1416 Probe in water

1420 Pinger attached

Sta 6 #1

1421 Begin descent

1429 4 second crossing

1430 1000 metres of water out.

1436 3 second crossing

1439 2000 metres out

1444 2 second crossing

1449 3000 metres out



92G-6-2

Rult Probe 6

1. Jun '92<sup>051</sup>

1452 1 second crossing

1456 All stop 3500m

1456 go down to 3900m

1501:30 Stop at 3900m

1506: Going down

1508.13 402m Hit!

GPS	23°	42.577
	98°	59.751
Loran	23°	42.19
	- 93°	59.51

1510 let 5 more metres out.

1514:10 Fire! of heat pulse

1517 4131 metres out

1519:23 start up slowly

1522 pull out 4094m.

1525 bring up to 3500

1548 All stop 3500  
drift for 5 minutes.

Sta 6 #2

1553 Going down  
to 3900

GPS	23	42.974X
	94	00.050

1554 Pulse Fired.

Loran:	23°	42.58'
	94°	59.86

1609 3900m all stop  
for 5 minutes.

1613 full speed down



929-6-2

Gulf Probe #6

1-June '92

16:14:40 4025m Hit!

~~Alt:~~ 23°42.72  
 Lat: 93°~~42~~59.97

16:15 Take down to 4080 and stop.

16:17 Let out 3-4 m/minute

16:19 Stop.

16:20:57 Heat Probe fires

16:22 Let out 5 metres

16:28 Start up slowly

 GPS= 23°43.281  
 94°00.242  
 Lat= 23°42.89  
 94°00.05

16:37 off bottom bring up to 3500m. and drift.

231° CSE  
 .03 kts

16:57 All stop 3500metres

17:00 Start down to 3900

Sta 6 #3

17:15 Start down

17:17 In bottom

90° 0.5 kts

17:23:21 heater pulse went ~~out~~ on
 17:29:29 start up slowly  
 17:34 out of bottom

GPS 23°43.706  
 94°00.425

14° 0.6 kts

17:50 3000m - bringing it up.



- 1809 1000 m out
- 1813 500 m to go 400 to pinger 338° 1.3/kts
- 1827 Probe at surface
- ~ 1838 Steam towards North @ 330°  
to latitude 23° 46
- 1846 change course to 000°
- ~ 1915 Probe lowered Sta ~~6~~ #4
- 1921 Pinger attached  
going on down 212° 0.5
- 1931 1000 m out
- 1938 3 sec crassing
- 1952 3500 m out
- 1956 EPC stopped recording water depth
- 2002 3900 m out St. 6 #4
- 2008:14 Probe Hit the Bottom
- 2014 Heater Probe Turned on
- 2027 Probe Pull out
- 2050 all stop 3500



92G-6-2

Gulf Probe 6

1 June 1992

054

2102 stop above station HFG-5 ~~at 3740m~~

2108 probe enter bottom 3740m depth

Loran-C23° 47.14  
94° 1.02GPS23° 47.5175  
94° 1.2502

2114 Heater pulse turned ON

2120 Winch started in

2126 Pullout probe from bottom

Loran-C23° 47.21  
94° 1.02GPS23° 47.5541  
94° 1.2094

2127 Pulling the probe up.

2145 Probe stopped at 3500m

2200 Probe stopped at 3900m

2202 Stop above station HFG-6

2207 Probe enter bottom ~ 3740m depth

Loran-C23° 47.32  
94° 01.03GPS23° 47.6934  
94° 01.2035



92 G-6-2 Gulf Probe 6

1 June 1992

055

LOREAN

CRS SPD

2214 Heater pulse ON

2220 Winch started in

2228 Pull out heatprobe from bottom ~ 3740 m

Loran-C

23° 47.45

94° 01.02

GPS

23° 47.7576

94° 1.2016

2309 Pinger Up

0.9° 0.4

2315 Probe Up

328° 0.1

2310 EPC Began Recording Again

2320 Probe on Board

303° 0.4

2325 ~~Wade~~ Heading south for Piston Coring.  
#6

2356Z Core is going Down

20° 0.9

GPS { 23° 46.819  
94° 00.904

0018 EPC Break in Recording

0027 Pinger <sup>(Reflection)</sup> Hit Bottom 2000 mGPS { 23° 47.0265  
-94° 00.9467

0057 Core on Bottom 105 m

139.2° 0.6

GPS { 23° 47.2271  
-94° 00.9206



92G-6-2 Gulf Probe 6 2 June 1992

056  
LORAN

CRS SPD

0115 2400 m. to go (winch-piston core) 338 0.5

0119 2000

0129 1000 m to go (winch-piston core) 302 1.0

0133 100 m to go

~0145 printer on board.

0200 Deploying the Maggies.

0217 Magnetometers ON One pen in the recorder is not working - digital signal is OK.

Waypoints for ~~the~~ this watch are:

①  $22^{\circ} 56' N$ ,  $94^{\circ} 03' W$

②  $22^{\circ} 56' N$ ,  $94^{\circ} 12' W$

③  $23^{\circ} 49' N$ ,  $94^{\circ} 12' W$

④  $23^{\circ} 46' N$ ,  $94^{\circ} 03' W$

0727 c/c to way point 2

1767 10.2

0815 c/c to way point 3

2163 9.8

0925 Loran C turned off (Fuse)?



926-6-2 Gulf Probe 6

2 June 1992

057  
CRS/SED

1335 c/c to 145°

~~17° 0.3~~

1336 Turn off magnum

1352 maggies secured on deck

1416 Continue Steaming for Heat probe site #7

1440 Rigging heat probe

1443 probe in water

1444 attaching pinger 100m off

1446 descending Penetration #1

1454 4 sec crossing

1455 1000m out

GPS: ~~23° 44.132'~~  
23° 44.132'  
94° 07.837

Loran: down

1501 3 sec crossing

1504 2000m out

1509 2 sec crossing

17° 0.3

1514 3000m out

1518 1 sec crossing

3900 stop

↓ ↓

1525

GPS 23° 44.695  
94° 08.105

1530 going down

1531 Hit 4009 m of wire out

1532 go to 4060



1533: let out 5 m<sup>3</sup>?

1537 Heat pulse fires!

1543 Ease up slowly

1548 Pull out  
up to 3500m

GPS

23° 44.853

94° 08.143

Loran: down

1610 Full stop 3500  
wait 5 minutes.

1615 go to 3900m for penetration #2

1623 3900m stop for 5 minutes.

1628 Full speed to bottom.

1629 4013 wire out HIT

1630 let out 5 metres.

1631 let out more

1635 Heater pulse fires!

~~1634~~<sup>1644</sup> Starting up slowly.

1640 Pull out  
4051 m out.

1649 Pull up to ~~3400~~ 3500m  
and drift

GPS: 23° 45.359

94° 08.257

Loran down

170  
.03km



~~922~~ 926-6

Gulf Probe 6

2 June '92

059

17

17° / 0.2kts

1710:31 Stop @ 3500m

1714: Start on down

15° 0.6kts

1723 Stop @ 3900m

1730 hit the bottom Sta 7#3

306° 0.4kts

1736 heater pulse on

343° 0.4kts

1742 Start back up

130° 0.5kts

1748 pullout of bottom

324° 0.1kts

1806:30 Stop @ 3500m

270° 0.3kts

1828:50 probe enter bottom Sta 7#4

1835:10 Heater probe turned on

1846 probe pulled out

1903 Stop at 3380

1923 all Stop 3900 second time

1929:51 probe entered bottom Sta 7#5

1936 Heater probe turned on

~~2009~~

1941 winch started in

2032 3900 m stop.

2037 pull up 100 m then drop back down



92G-6-2

Gulf Probe 6

2 June 1993

060

2051 Larry says to  
Bring up to 3700 m

Heat probe data not showing up  
on 12 KHz. - Actually its the bottom return  
not showing

2054 SA/ITChi decides to bring up  
to 2000 m Fast.  
50 or 60 m/minute

bottom return not showing due either  
excessive bubbles under ship or excessive  
wire angle

2110 Stopping ~~the~~ ship

2119 stopped at 2000m

72° 0.3 kts

turning around ship

bring it up to 1000m 25m/min

2132 144° 1.6 kts

2152 1301 m of wire and the probe  
is going down.

2212 3000 m of wire

2218 Winch stops at 3500 m  
IN BOTTOM

2245 Coming Up

2305 3000 m to go

2345 Wagon Heat Probe on deck



926-6-2

Gulf Probe 6

2 June 1992

061

2351 Maggies are being deployed CRS SP

0008 Magnetometer on

0600 LORAN C out again

0608 Begin turn to way point<sup>3</sup> 270° 000° 9.9

~0624 Completed turn 271 10.0

0657 Begin turn to Way Point 4 180° 20.8 10.3

~~0825~~

~1230 begin turn to east

1234 Maggies shut off

1253 Maggies on board

1314 Streaming to line

1319 Probe in the water

1320 probe starting down

1323 pruger on &amp; going down

~~1324 2 whales sighted - dead calm~~

1331 4 second crossing Stahra 3 penetrations

2770 .6k

1332 1000m out

1338 3 Second Crossing

1342 2000m out

I 0825 - Whale sighting, unknown species  
2 individuals.

23° 42'

99° 17'



928-6-2

Gulf Probe 6

3 June

062

1346 - 32 Second crossing.

1351 3000m out

1354 1 Second Crossing.

1357 Stop at 3500m

379° 0.9

1359 Go down to 3900m

1404 Stop at 3900m

1409 Full Speed down

1410 In Bottom 3983m out

GPS 23° 44.74, Lat down  
94° 17.437

1416 Heater Pulse fires!

1422 ~~test~~ Start in slowly1426 Pullout GPS 23° 44.917, 94° 17.460

Up to 3500

1447 All stop 3500

Go down to 3900

1503 All stop 3900

1508 Full speed down.

1509 In bottom 3997 out

GPS: 23° 45.150, 94° 17.537



92A-6-2

Gulf Probe 6

3 June. 063

CSE spec

1515 Heat Pulse Fires

335° 1.1

let out 10<sup>5</sup> metres

let out 5 metres.

1521 Begin Ascent

1526 Pull out GPS 23° 45.254  
94° 17.561

Up to 3500m

1547 All Stop 3500m  
Go to 3900mGPS  
~~23° 45.333~~  
~~94° 17.659~~  
23° 45.333  
94° 17.659

1603

All stop 3900 metres.

299° 1.0

1608

Full speed down

1609

Hit!

~~3997 out~~ 4052 outGPS 23° 45.500  
- 94° 17.766

1615 Fire! Boom.

1621 begin up slowly

1626 Pull out GPS23° 45.627  
94° 17.797

320° 1.7 kts.

1630

Up to 3500m  
Steaming.

1639

Beginning to kite?

290° 1.3 kts

1644

Stop at 3500

1650

Bring up to ~~2000m~~ unknown depth

1651

Stop → go slowly down to 3000m



92-G

Full Probe 4

3-June

064

CSE SPD  
24° 1.0

1658 Arrive station 8 penetration 4

1710 stopped at 3899

160 0.5 kts

1715 bring it on down

1715:55 hit The bottom

1722

heater pulse fired

1730

bring it on up

43° 0.8 kts

GPS  
23° 46.058  
94° 17.993

1734

Pulling out of bottom

GPS  
23° 46.168  
94° 18.039

284 0.5 kts

1736

Underway to steam

350° 1.5 kts

1755

All Stop Sta 8 #5

23° 46.787 94° 18.861

1758

on way down

175 0.8 kts

1803:31

All Stop 3900m

83° 0.3 kts

1817

bring it up 100m / &amp; back down

1822

All Stop 3900m

349° 0.4 kts

1827

on the way in

1828:02

In the bottom

~~1828:06~~

heater did not fire

GPS 23° 46.596  
94° 18.151

1838

On the way back up  
(not yet out)

248° 0.2 kts

1840

May have fired heater?

Investigating this  
Yes it did fire



92G-6-leg 2

Gulf of Mexico 6

3 June 1992

065

		CSE	SPD
1851:39	Pulled out of bottom	61°	0.2 knots
	GPS 23° 46' 693' N 94° 18' 184' W		
1858	steaming	3°	2.0
1916	Shipped stopped	16°	1.3
1929	All stop 3900		
1933	up 100 / back 100m	200°	0.7
1941:00	Stop at 3900	338°	0.4 knots
1946:07	On the way down		
1947:01	In the bottom	192°	0.4 knots
1953:21	Heater pulse fired	18°	0.6 knots
2005:48	out of the bottom	269	0.2
2018	3000m out		
2029	2000m out		
2040	1000m out		
2044	500m to go 400 to pinger		
<del>2005</del> 2050	Heat Probe at Surface		
2055	Securing Heat Probe on Deck.		

The End For now



92G-6-Leg 2 Gulf Probe 6 3 June 1992

066

ICPSL

CPS SPD

2130 Piston Core <sup>#7</sup> Going Down

GPS  $\begin{cases} 23 & 47.4453 \text{ N} \\ -94 & 17.9485 \text{ W} \end{cases}$

GPS 635.8 0.5

2137 Pinger On - Going Down

103m

GPS  $\begin{cases} 23 & 47.4964 \text{ N} \\ -94 & 17.9439 \text{ W} \end{cases}$

GPS 45.0 0.5

(110m to bottom of core)

2147:30

1000m Out

GPS  $\begin{cases} 23 & 47.5560 \text{ N} \\ -94 & 17.8775 \text{ W} \end{cases}$

49.7 0.9

2157

2000m Out

GPS  $\begin{cases} 23 & 47.6131 \text{ N} \\ -94 & 17.9077 \text{ W} \end{cases}$

2216

3500 m

356 0.2

2222

3900 m

2228:40

Bottom!!!

GPS  $\begin{cases} 23 & 47.7293 \text{ N} \\ -94 & 17.9013 \text{ W} \end{cases}$

336 0.5

240.8 0.6

2240

3000 m to Go on Return

GPS  $\begin{cases} 23 & 47.7580 \text{ N} \\ -94 & 17.9512 \text{ W} \end{cases}$

2252

2000 m to Go

GPS  $\begin{cases} 23 & 47.707 \\ -94 & 17.973 \end{cases}$

196.5 0.3

2302

1000 m to recover the core #7

2307

500 m " " " "

2312

Pinger onboard



9266-2 Gulf Probe 6 3 June 1992

067

CRS SPD

2327 Piston Core #7 onboard.

Waypoints:

1 {  $23^{\circ} 49' N$   
 $94^{\circ} 21' W$

2 {  $22^{\circ} 56' N$   
 $94^{\circ} 21' W$

3 {  $22^{\circ} 56' N$   
 $94^{\circ} 30' W$

4 {  $23^{\circ} 49' N$   
 $94^{\circ} 30' W$

2347 Maggies Out

305 6.3

Way points for this evening -  
lobster being served on the sunset  
deck

i.)  $22^{\circ} 56' N$   
 $- 94^{\circ} 21' W$

ii.)  $22^{\circ} 56' N$   
 $- 94^{\circ} 30' W$

iii.)  $23^{\circ} 49' N$   
 $94^{\circ} 30' W$

0507-0516

Turn from  $180^{\circ}$  to  $270^{\circ}$

0555

turn to waypoint #4 000'

273.5 9.3

1143

Maggies Off

1.9 9.4

1202

Both maggies are onboard



92G-6-2

Gulf Probe 6

4 June 1992

068

CPS SPD

00 58

Deploying heat probe

304.7 1.1

1303

Heat Probe Going Down

GPS  $\begin{cases} 23^\circ & 45.248 \\ 94^\circ & 26.620 \end{cases}$

~~1312~~ 1312 1000m out

1331 3000m out.

1337 Stop 3500 m out

1338 Down to 3900 ~~m~~ M

1343 All stop 3900m

1347 begin descent.

1349 HIT. 3997 out

GPS  $\begin{cases} 23^\circ & 45.597 \\ 94^\circ & 27.120 \end{cases}$

~~1356~~ 1356 Fire! Bang. \*1

1401 Start in slowly

1406 Pull Out 4022m out

GPS  $\begin{cases} 23^\circ & 45.703 \\ 94^\circ & 27.229 \end{cases}$

Up to 3500 metres.

1444: Stop at 3900

1450: Probe enters

GPS:  $\begin{cases} 23^\circ & 45.966 \\ 94^\circ & 27.434 \end{cases}$



1456 Fire! kabloony #2

1501 Start in slowly 4060m

1506 Pullout

23° 46.085  
94° 27.542

1529 All stop 3500  
back down to 3900

1545 All stop 3900

1551 Probe enters water

Gps  
23° 46.393  
94° 27.722

1557 Heat Probe

Fires! 'keerunch!' #3

1603 Begin slow ascent

1607 Pullout

Gps: 23° 46.501  
94° 27.777

1629 All stop ~~3400~~ 3500  
go to 3900

1650 descend

1651 HIT

Gps: 23° 46.832  
94° 27.942

#4



1658 Heat pulse fired! Zowie!

1703 Starting up

1708 Pulled out of bottom

6PS 23° 46.955 94° 28.026

1730 3500m stopped

1747 3900 m out

1753 Probe in bottom

23° 47.323  
- 94° 28.194

#5

1759:30 Heater pulse Turns on

1810 Probe pull out

~~1810~~

1834

all stop 3500m

Heat Probe 9

Penetration 6

1851 all stop 3900

COG 278°

1857 Probe enters bottom

50G .5 Kts

23° 47.725  
- 94° 28.425

1903 Heater pulse turned on

1913 Probe pull out

Heat probe 9

penetration 7

1936

~~3500m~~

all stop 3500



92-6-6

GULF PROBE VI

4 June 1992

071

4 June 1992

1952 all Stop 3900

COG 325°

SOG 1.2 KT

1957 Heat probe Enters Bottom

2003 Batteries died  
So Bring it up

2026 2500 m to go

2045 500 to go  
100 to the pinger

2055 probe at surface

2110 Maggies are being deployed

2126 Magnetometers ON

Waypoints:

(1)  $\begin{cases} 24^{\circ} 36' N \\ 94^{\circ} 30' N \end{cases}$ (2)  $\begin{cases} 24^{\circ} 36' N \\ 94^{\circ} 39' W \end{cases}$ (3)  $\begin{cases} 23^{\circ} 42' N \\ 94^{\circ} 39' W \end{cases}$ Piston  $\begin{cases} 23^{\circ} 46.5' N \\ 94^{\circ} 35' W \end{cases}$   
Core

0309 Begin westward turn.

0400 c/c to 180°

0921 Magnetometers off.

by 0915 in midst of course change to 036°



92G-6-2 GULF PROBE 6

5 June 1992

072

CRS SPD

0939 Maggie IN: resume Speed

032 9.5

1010 On Station Core #8

1026 Core going down

GPS  $\left\{ \begin{array}{l} 23^\circ 46.548 \\ 94^\circ 35.167 \end{array} \right.$ 

352.6° 0.4

1032 Pinger Attached (110m to trigger cord)

1037 550m Out

1042 1000m Out

1048 1500m Out

1055 2000m

1107 3000m

1128:30 Hit Bottom (3981m)

GPS  $\left\{ \begin{array}{l} 23^\circ 46.2480 \\ -94^\circ 35.9496 \end{array} \right.$ 

296° 0.8

1141 3000m to Recover Core #8

1151 2000m to go

250.1 0.8

1201 1000m

1206 500m  
400m to pinger

1225 Core on Board

277.4 0.9

1226 C/c 75° E  
Heading to Heat Probe Station 10



1312 Probe in water

1316 finger attached going down 3136<sup>M</sup>

1325 4 sec. Crossing.

Gps	23° 47.189
	94° 33.980

1326 1000 m out

1332 3 sec. Crossing

1335 2000 m out

1339 2 sec crossing

1344 3000 out

1348 1 sec. Crossing.

1349 3500 m out  
go to 3894.

1354 3894 m #1

1400 HIT.

Gps	23° 47.390
	94° 34.535

1406 Fire

2960 .912

1411 Start up slowly

1415 Pullout

Gps	23° 47.495
	94° 34.701

go up to 3500m



92-4-62

Bull probe 6

5 June

074

CJE 300

1438 3500 All stop  
go to 3900

1454 Stop at 3894

1500 full speed down #2

1501 HIT

GPS	23° 41.581
94°	35.071

1508 fire

1930 18m

1513 Start coming up

1518 Pull out

GPS	23° 41.73
94°	35.213

go to 3500 m.

1540 All stop 3500 m  
go to 3894 m

1556 stop 3894 m #3

1601 Start down.

1601:55 Enter bottom.

1608 Fire

1614 Start up slowly

1619 full out

GPS	23° 41.889
94°	35.412

1620 Steaming down South h for 1/2 mile



92-G-6-2

Gulf Probe 6

075

5 June

CSE

500

255°

0.2k

204°

1.2k

 $\Delta$  CSE to 180°1341 All stop 3500 - still steaming  
back to 3894.1357 All stop at 3894  
go up to 3300m

1708 go up to 3700 m

Station  
Heat Flow # 10  
Penetration ~~was~~

1711 go back down 3900 m

1713 Heater pulse Fired Too soon  
above Bottom in waterCOG 289°  
SOG 5 Kts

1719 all stop 3900

1724 Heat probe in Bottom

23° 47.362  
94° 36.002 A

1730 Heater pulse Fired!

1736 winch starting in

1800 3500 m in Station 10 #5

23° 47.442' N 94 36.306' W

1836 3900m stop

329 0.8kts  
~~1111~~ ~~1111~~

1842 in bottom

318° 08kts

23° 47.039' N 94° 36.478' W

1853 bring it out



92-6-6

Gulfprobe 6

5 June 92 076

1900	out of bottom	23° 47.150'N 94° 36.578'W	304° 0.3 kt
1922	stop at 3500 and then back down		216° 1.4 kt
1931	ship stop <del>at</del> <del>3500</del>		344° 0.2 kt
1939:15	up 100 down 100m		140° 1.3 kt
1948	stop at 3900m above bottom		72 0.1 kt
1953	in bottom	u	
1959:53	heater pulse		
2009	out of bottom		198° 0.6 kt
	23° 47.038'N 94° 37.191'W		
2013	bring it all the way up		
	BATTERIES DEAD!!		
2045	1000 m out		
2059	Pinger removed		
2110	Probe secured		
2123	Deploying Maggies		306.4 7.5
2140	Maggies Deployed & activated		358.7 9.3
2145	C/c to 180° South		



926-6-2 Gulf Probe II 6-June 077

Way points for this tropical evening.

1.)  $22^{\circ} 56'$   
 $94^{\circ} 39'$

11)  $22^{\circ} 56'$   
 $94^{\circ} 40'$

111)  $23^{\circ} 49'$   
 $94^{\circ} 40'$

Turn 0250 - 0300  $180^{\circ} \rightarrow 270^{\circ}$

0340 - 0400

TURN  $270^{\circ} \rightarrow 000^{\circ}$

0933 turn off magnetometers 0410 G.I

0935 c/c to  $135^{\circ}$

0954 Maggie onboard

1030 On heat flow stations 11-1

1039 Instrument - Heat Probe in water

~1040 Ringer in water

1048 1000m Out

1058 2000m Out

1108 3000m Out

1125 Probe entered Bottom

GPS  $\begin{cases} 23 & 45 & 233 \\ 94 & 49 & 578 \end{cases}$

025.9 1.0



926-6-2

Gulf Probe 6

6 June 1992

078

CPS SPD

1144

heat probe out end of HF 11-1

23° 45.1988, 94° 44.7377

1204

Heat Probe lowered again

GPS { 23 45.6609

(3547.8m)

{ -94 44.8773

004.6° 0.8

(See computer log for more data)

1305

Underway at 2kts on 000°

1323

Stop at ~~3450~~ 3450 to ~~start~~  
to take down to 3850

1342

All stop. 3800m ~~go to~~

1403

Stop 3850 m wire out

1409

Full speed down.

1410

Penetration # 07 HIT

GPS:	23° 46.400
	94° 45.873

1416 Five of that pulse

1422

Begin JP slowly

1426

CPS	23° 46.400
	94° 45.873

Pull out

up to 3450

begin steaming

1449

3450 out

1504

3850 all stop.

1507

Stop steaming.



92G-6-2

Gulf Probe 6

6 June 1979

1515 ~~8~~ moving probe up and down (to avoid  
that pulse firing) while wire angle  
improves

~~1533~~ 1533 going down

1534 HIT # ~~3~~

Gps: 23° 47.051  
94° 46.468

1540 LARRY Belcher, Pulse Fires

1546 Begin up slowly

1551 ~~8~~ Pull out

Gps: 23° 47.032  
94° 46.572

1623 Stop above bottom at 3850.

1627 going down

1628 HIT

Gps: 23° 46.999  
94° 46.485

1635 Fire.

1641 Start in slowly

1646 Pull out

Gps 23° 46.991  
94° 46.897

# ~~3~~ 4



92G-6-2

Gulf Probe V6 June 92 080

1647 Up to 3450  
down to 3050

1705

1709

going on down

1709

In the bottom

23° 46.997

94° 47.068

GPS

202 0.9 kts

1700

heater pulse

1722

winch started in

1731

out of bottom

287 0.1

23° 46.993

94° 47.190

GPS

1744

3000m

1754

2000 m To go

1804

1000m To go

1808

500 to go 400 to the pinger

1815

Pinger removed

1818

Probe at surface

317.3 0.6 kts

1823

PROBE ON DECK

1824

CRS 295 @ 3° until repositioning complete.

1828

C/SPEED - 6kt.

1830

C/SPEED - FULL

1915

C/C - 110°



92G-6

GULF PROBE 6

6 June 1992 081

~~SPD~~ SPD

1938 Core going over

251° 1.3

~1942 Finger going down

1950

500m out

245.6 1.3

1955 1000 m out

2001 1500 m out

2007 2000 m out

2013 2500 m out

2019 3000 m out

2022 3500 m out

2034 3800 m out &amp; stopped

2037:40 In bottom

261° 0.2 kt

GPS 23° 49.440

94° 54.163

2048 3000 ~~to go~~  
meters of wire out

2058 2000 meters out

2106 1000 m out

2139 Deploying maggies

Reset MAGGIE LOGGER COCKS.

2154 Maggies turned on.



926-6

Gulf Probe 6

7 June

082

~ 0005 c/c to 000°

~ 0046 way point for the Aloha Cruise -  
Galveston Bay.

0615 c/c to 002°

0038 9.5

1743 c/c to 003° To pass fishing vessel

---

## TRANSIT

---

8 June

0056 maneuver Co left for unidentified radar object

0500 Magnetometers Turned off  
For the end of the cruise

0520 Maggies secured

0900 Watch Secured

END Leg 2 Gyre

352.9 / 104



Sighting Form  
Gyre Cruise  
17-24 May 92

Date 6-3-92 Time 0825 Hor. #      Est. dist. 200 YARDS

# ret. below horiz      Lat. 23-42 Long 94-17

Observer making sighting ED MIKKELSEN, DUANE TOOHEY

Species: UNKNOWN

number of individuals: Two (2)

Behavior: <sup>Swimming</sup> ~~SWIMMING~~ TOGETHER, BLOW <sup>Appeared</sup> ~~APPEARED~~ TO  
GO STRAIT UP

Towing Y      N ✓

Photos: N ✓ Y      → Roll(s)      Frames       
"      "       
"      "



Day	Julian Day
14-May-92	135 ✓
15-May-92	136 ✓
16-May-92	137 ✓
17-May-92	138 ✓
18-May-92	139 ✓
19-May-92	140 ✓
20-May-92	141 ✓
21-May-92	142 ✓
22-May-92	143 ✓
23-May-92	144 ✓
24-May-92	145 ✓
25-May-92	146 ✓
26-May-92	147 ✓
27-May-92	148 ✓
28-May-92	149 ✓
29-May-92	150 ✓
30-May-92	151 ✓
31-May-92	152 ✓
1-Jun-92	153 ✓
2-Jun-92	154 ✓
3-Jun-92	155 ✓
4-Jun-92	156 ✓
5-Jun-92	157 ✓
6-Jun-92	158 ✓
7-Jun-92	159 ✓
8-Jun-92	160 ✓
9-Jun-92	161

138 START LEG 1 1200Z 17 MAY  
145 END 2100Z 24 MAY

146 START LEG 2 1500Z 25 MAY  
160 END 0900Z 8 JUN