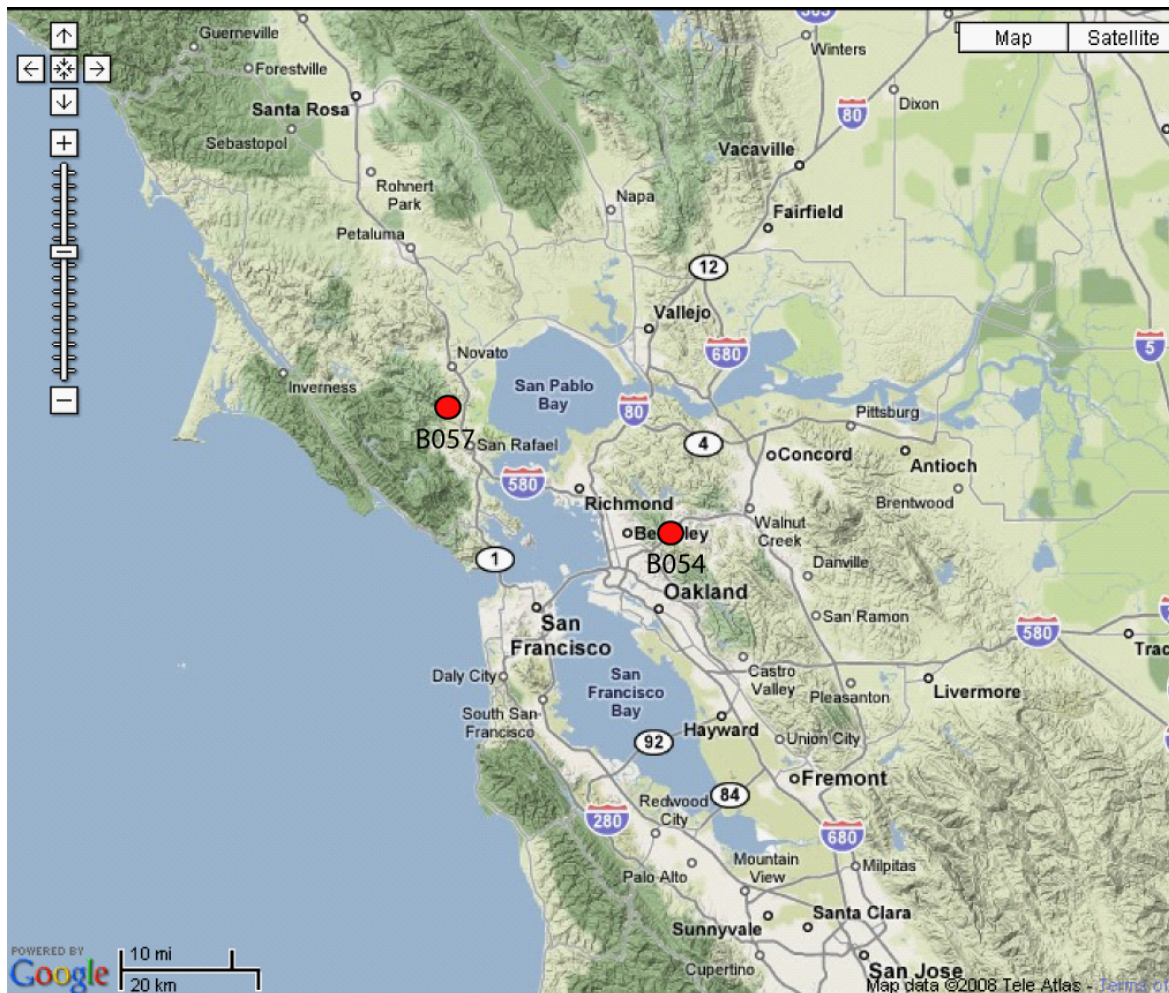


## Station Notes for B057, lucasv057bcn2008

Latitude:	38.0273 (WGS 84)
Longitude:	-122.5655 (WGS 84)
Elevation:	14.4 m / 47 ft
Install Depth:	219.5 m / 720 ft
Orientations:	CH0=206.9, CH1=146.9, CH2=86.9, CH3=56.9
Install Date:	June 10, 2008
GTSM Technologies #:	US71
Executive Process Software:	Version 1.14
Logger Software:	Version 2.02.2
Home Page:	<a href="http://www.unavco.org/instrumentation/networks/status/nota/overview/B057">www.unavco.org/instrumentation/networks/status/nota/overview/B057</a>
Notes Last Updated:	April 1, 2019

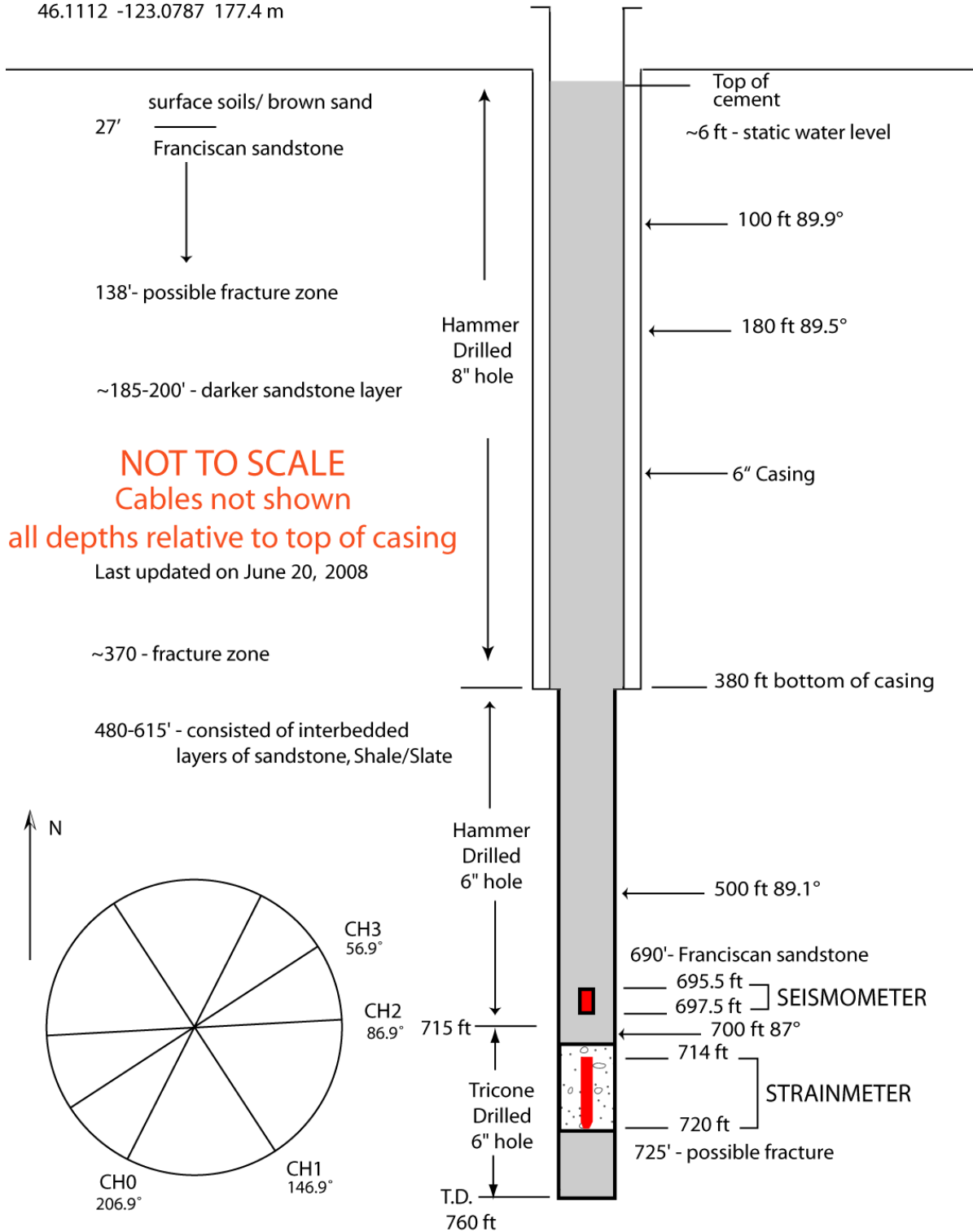
·Install depth is from the top of the casing to the bottom of the strainmeter.

·Orientations are in degrees East of North.



San Francisco strainmeter network, August 2008

B057 lucasv057bcn2008  
 46.1112 -123.0787 177.4 m



### Instrumentation at Strainmeter

Instrument	Units	Bottle/ASCII Scale Factor	SEED Scale Factor
Pore Pressure	Hecto Pascals	None Installed	---
GTSM Barometer	Kilopascals	1.0	0.0001
Rain Gauge	Millimeters/hour	1.0	0.252
Down hole Temperature Sensor	Degrees Celsius	1.0	0.0001
Logger Temperature Sensor	Degrees Celsius	1.0	0.0001
Setra Barometer	Hecto Pascals	None Installed	

#### 1. Installation notes

June 10, 2008 UTC

15:30 - On site. Spend morning trenching/setting up V-sat and running errands.

20:27 - Turn off US71 and sound hole (Depth = 722').

Compass Test - X-min (-0.668), X-max 0.304, Y-min (-.214), Y-max 0.714.

22:42 - Start mixing 9 bags Penn Grout (batch DJ805).

22:50 - Last water added (4.9 qts per bag).

23:04 - Lowering dump bailer (flow test gave 15 sec flow time).

23:14 - Lowering strainmeter to 720'.

23:29 - Strainmeter turned on.

23:35 - Renamed B057, downhole temperature 3.96 V and falling (the weather was hot and sunny so the instrument was warm before installation), initial compass readings X (-0.079) Y (-0.203).

June 11, 2008 UTC

15:00 - On site.

15:30 - Strainmeter off, move cable.

16:30 - Strainmeter on. Get fencing materials and start building fence.

Seismometer #127

com - infinite

v - 2.56 kohm

h1 - 2.52 kohm

h2 - 2.66 kohm

22:47-23:05 - Lower seismometer to depth of 697.5'.

23:15-00:15 - Trip in, tag grout at 703' (19' of grout + strainmeter).

00:30 - Off site.

June 12, 2008 UTC

15:30 - On site, working on fence, VSAT, and setting up for cement delivery.

18:30-21:15 - Pumping 5.5 yds of neat cement, get return to surface.

21:15-01:00 - Continue working on fencing, trenching, building ballards, and cleaning site.

01:00 - Off site.

June 13, 2008 UTC

14:30 - On site.

15:30 - Electricians on site. Spend the day building the fence and installing ballard.

17:00-19:00 - Cutting casing down to below ground and cleaning up site.

21:30 - Leave for airport.

June 16, 2008 UTC

21:00 - On site, electrician is done. Look at seismometer data and determine plan for patching cable. Fix VSAT, everything is online except for the Marmot and GTSM.

01:30 - Off site.

June 17, 2008 UTC

15:00 - On site. Hang fence gate, fill in electrical trench, and work on seismometer cable. 1 yd of gravel arrives to spread over disturbed areas. Bury cables under concrete and clean site.

22:48 - Logger off. Adjust downhole temperature (1.557 V adjusted to 1.025).

00:01 - Logger on. Reprogram Marmot, get strainmeter online.

01:00 - Off site.

June 18, 2008 UTC

14:30 - On site. Poured cement pad over cable, filled in trench, and cleaned up site.

18:20 - Off site.

## **2. General Information**

- Sensitivities of all EH channels corrected on March 4, 2010.

## **3. Strainmeter Maintenance**

- September 19, 2008 - Warren Gallaher upgraded the GTSM logger software from version 1.15 to 2.02.2. The site was offline from about 20:00 until about 20:30 UTC.
- March 19, 2009 – The logger software was upgraded from 2.02.2 to the correct version of 2.02.2 that matches the compact flash size.
- April 20, 2009 – A Sentra barometer was added to the site.
- June 3, 2009 – Liz VanBoskirk from 16:00 to 16:50 local time. The RT board firmware was upgraded from version 1.18 to 1.20, and the quadrature was adjusted.
- December 20, 2010 – Chad Pyatt deployed a temporary broadband sensor at the site to get seismometer orientation data. He also collected Birdog data from the borehole seismometer.
- June 18, 2012 – Doerte stopped by the site and repointed the VSAT dish. After a slight adjustment in elevation, the signal strength went from 78 to 90. Cross pole passed. The county has pruned the trees in front of the dish, but the vegetation was still pretty dense and might have an impact on transmission. It seemed that ping returns were on the order of 3-4 seconds after the adjustment. If alternative comms are an option, a Verizon Proxicast modem that she tested on site showed good signal strength and a fast connection. She uploaded some pictures to the DIMS.
- July 26, 2012 – The VSAT equipment was removed and a Sprint CDMA installed.
- November 13, 2012 – GPS\_Coldstart command issued remotely.
- January 8, 2016 – Station had been offline. Sprint LC2 was not online, and not accessible through the web interface. Replaced LC2 with LS300. Replaced Sprint aircard with Verizon LS300. Signal strength was not great, but ok, and system went online without problems. LS300 was mounted on lower rail.

- March 26, 2019 – Connectivity had become intermittent. Visited to replace LS300 with RV50, and replaced fiber optics modem.
- December 18, 2019 – Cleared out rain gauge, repaired fence boards, and added earthquake straps. Replaced batteries and set quads. Cleared weeds.