



LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY
ADVANCED LIGO FTIR SAMPLE RECORD

| | | | | | | | | | |
|----------------|--------|--|-----|-----------|----------------|--|---------|--------------------------|---------|
| Document: | LIGO-E | | -v1 | Date: | | | | | |
| Submitter: | Name: | | | | Email address: | | | Location: | |
| Title: | FTIR: | | | | | | | | |
| System(s): | | | | | | | | | |
| Assembly(ies): | | | | | | | | | |
| Bake Load: | | | | Pre-Bake | | | Class A | <input type="checkbox"/> | URGENT? |
| JIRA URL: | | | | Post Bake | | | Class B | | |
| Notes: | | | | | | | | | |

| PARTS | | | | | SAMPLES | | | |
|-------|----------|----|-------------|------|---------|---------|---|--------------------------|
| # | Part No. | SN | Description | PO # | # | Type | Description <small>(for holes indicate "through" or "blind")</small> | Amount |
| 1 | | | | | 1 | Surface | | Area (cm ²): |
| | | | | | 2 | Holes | | # of Holes: |
| 2 | | | | | 3 | Surface | | Area (cm ²): |
| | | | | | 4 | Holes | | # of Holes: |
| 3 | | | | | 5 | Surface | | Area (cm ²): |
| | | | | | 6 | Holes | | # of Holes: |
| 4 | | | | | 7 | Surface | | Area (cm ²): |
| | | | | | 8 | Holes | | # of Holes: |
| 5 | | | | | 9 | Surface | | Area (cm ²): |
| | | | | | 10 | Holes | | # of Holes: |

| # | Part No. | SN | Description | PO # | # | Type | Description (for holes indicate "through" or "blind") | Amount |
|----|----------|----|-------------|------|----|---------|--|--------------------------|
| 6 | | | | | 1 | Surface | | Area (cm ²): |
| | | | | | 2 | Holes | | # of Holes: |
| 7 | | | | | 3 | Surface | | Area (cm ²): |
| | | | | | 4 | Holes | | # of Holes: |
| 8 | | | | | 5 | Surface | | Area (cm ²): |
| | | | | | 6 | Holes | | # of Holes: |
| 9 | | | | | 7 | Surface | | Area (cm ²): |
| | | | | | 8 | Holes | | # of Holes: |
| 10 | | | | | 9 | Surface | | Area (cm ²): |
| | | | | | 10 | Holes | | # of Holes: |

Instructions:

1. All parts must be sampled. The sampling must be at least 5% of the total area and at least 5% of the total number of holes. Surface samples and hole samples are to be separate. Sampling fewer than all parts in a bake load, or sampling less than 5% of the area or holes requires a waiver from the Vacuum Review Board, or a LIGO Vacuum Review Team (VRT) member (see the Advanced LIGO [VRB wiki](#) for member list). (*Sampling requirements are defined in section 5.1 of E0900480*).
2. Read the instruction on how to take FTIR samples, given in document [E0900479](#). Make sure that the sample bottles are tightly sealed!
3. Reserve a Document Number (E-type) from the LIGO Document Control Center (DCC): <https://dcc.ligo.org/cgi-bin/private/DocDB/ReserveHome>
4. Complete the form above. You must select a PO# to indicate where to charge the testing. PO# S491485 is strictly A+ testing and S491488 is for all other testing.
5. File this completed form in the DCC under the reserved number as revision 1, i.e. -v1.
6. If off-site ship a printed copy of this completed form and the FTIR samples (properly packaged) to Calum Torrie at Caltech. Follow all procedures laid out in [T1700469](#): Documentation associated with shipping “dangerous good” in excepted quantities.
7. Once at Caltech, Calum will review (for need and priority) and then forward a printed copy of this complete form and the FTIR Samples (properly packaged to: Attn: Jerami Mennella, Jet Propulsion Laboratory, Bldg 83 Room 1014800, Oak Grove Drive, Pasadena CA 91109-8099
8. Calum will then send an email to jerami.mennella@jpl.nasa.gov indicating that an FTIR sample package is in route and indicate whether testing results are urgent or not.
9. JPL should put the LIGO document number of this sample form into the head of the FTIR analysis report and email this report to the submitter (email given in form).
10. The completed FTIR analysis report from JPL is to be reviewed and approved by the VRT member at the submitter’s location. The VRT member makes any desired notations on the report and then files the report (*.pdf) into the DCC as version -V2 of the document number of this completed sample record form. This DCC record should also be associated with the event “FTIR Testing”. If approved, the VRT member also informs the submitter via email whether the FTIR sampled load is approved or rejected.