GOR Heavy Oil Sample Collection Procedure
GPA 2174

The following is a brief explanation of the GOR heavy oil sampling requirements.

The client should provide an access point of at least ½” diameter fitting that would be representative of the process fluid of interest. It is best to connect the sampling device as close to the vessel access point as possible. Try to avoid long tubing runs, as cooling will take place. Bleed the access point just prior to connecting the device.

Client personnel: Provide the process vessel temperature and pressure to the OEC laboratory technician performing the sampling.

Important Notes:
- The technician collecting the sample must attend site orientation and, at a minimum, the Transient Worker orientation.
- The technician collecting the sample must be escorted by a knowledgeable client employee.
- Keep the sample point as close to the vessel as possible to prevent cooling issues.
- If possible, all tubing in the sampling apparatus should be 3/8” or greater in size. With heavy oil, the smaller tubing creates restrictions with the slightest bit of cooling.
Less Than Ideal Sample Point

Ideal Sample Point

OEC Service Locations

<table>
<thead>
<tr>
<th>CENTRAL COAST</th>
<th>SAN JOAQUIN VALLEY</th>
<th>VENTURA/LA BASIN</th>
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</thead>
<tbody>
<tr>
<td>307 Roemer Way, Suite 300</td>
<td>101 Adkisson Way</td>
<td>4464 McGrath, Unit 104</td>
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<tr>
<td>Santa Maria, CA</td>
<td>Taft, CA</td>
<td>Ventura, CA</td>
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<tr>
<td>(805) 922-4772</td>
<td>(661) 762-9143</td>
<td>(805) 922-4772</td>
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