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<td>°F</td>
<td>degrees Fahrenheit</td>
</tr>
<tr>
<td>af</td>
<td>acre feet</td>
</tr>
<tr>
<td>BOPD</td>
<td>barrels of oil per day</td>
</tr>
<tr>
<td>BWPD</td>
<td>barrels of water per day</td>
</tr>
<tr>
<td>cy</td>
<td>cubic yard</td>
</tr>
<tr>
<td>dB; dBA</td>
<td>decibel; decibels on the A-weighted scale</td>
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<td>ft²</td>
<td>square foot</td>
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<td>GWh/year</td>
<td>Gigawatt-hours/year</td>
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<tr>
<td>Hz</td>
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<td>kilovolt amperes</td>
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<td>kilowatt</td>
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<td>L&lt;sub&gt;dn&lt;/sub&gt;</td>
<td>day-night sound level</td>
</tr>
<tr>
<td>L&lt;sub&gt;eq&lt;/sub&gt;</td>
<td>equivalent steady sound level</td>
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<tr>
<td>L&lt;sub&gt;eq(24)&lt;/sub&gt;</td>
<td>24-hour equivalent sound level</td>
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<tr>
<td>mg/kg</td>
<td>milligrams per kilogram</td>
</tr>
<tr>
<td>mile²</td>
<td>square miles</td>
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<td>MMSCFD</td>
<td>million standard cubic feet per day</td>
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<tr>
<td>MSCFD</td>
<td>thousand standard cubic feet per day</td>
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<tr>
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<td>nautical mile</td>
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<td>psig</td>
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<td>µg/m³</td>
<td>micrograms per cubic meter</td>
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<td>volts</td>
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<td>V/C</td>
<td>volume to capacity ratio</td>
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<td>VAC</td>
<td>volts of alternating current</td>
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## OTHER ABBREVIATIONS & ACRONYMS

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<td>All American Pipeline</td>
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<td>ACP</td>
<td>Area Contingency Plan</td>
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<tr>
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<td>ANSI</td>
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<td>AOA</td>
<td>Airport Operating Area</td>
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<td>APCD</td>
<td>Air Pollution Control District</td>
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<td>API</td>
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<td>ATC</td>
<td>Authority To Construct</td>
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<td>B</td>
<td>BMP</td>
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<td>H2S</td>
<td>hydrogen sulfide</td>
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<td>HDPE</td>
<td>High Density Polyethylene</td>
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<td>HWTS</td>
<td>Hazardous Waste Tracking System</td>
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<tr>
<td>ICS</td>
<td>Incident Command System</td>
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<tr>
<td>IIRT</td>
<td>Initial Incident Response Team</td>
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<tr>
<td>IMO</td>
<td>International Maritime Organization</td>
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<tr>
<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<tr>
<td>IRI</td>
<td>Industrial Risk Insurers</td>
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<td>LFC</td>
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<td>LLCS</td>
<td>Liquid-Liquid Cyclone Separator</td>
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<td>LNG</td>
<td>liquefied natural gas</td>
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<td>LOS</td>
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<td>LPG</td>
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<td>LRDP</td>
<td>Long Range Development Plan</td>
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<td>MM</td>
<td>mitigation measure</td>
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<td>MMP</td>
<td>Mitigation Monitoring Program</td>
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<tr>
<td>MMPA</td>
<td>Marine Mammal Protection Act</td>
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<td>MMS</td>
<td>Minerals Management Service</td>
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<tr>
<td>MND</td>
<td>Mitigated Negative Declaration</td>
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<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>MRMD</td>
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<td>MS4</td>
<td>municipal separate storm sewer system</td>
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<td>MSFCMA</td>
<td>Magnuson-Stevens Fishery Conservation and Management Act</td>
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<td>msl</td>
<td>mean sea level</td>
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<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
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<td>ND</td>
<td>Negative Declaration</td>
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<td>NFPA</td>
<td>National Fire Protection Association</td>
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<tr>
<td>NFRAP</td>
<td>No Further Remedial Action Plan</td>
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<tr>
<td>NGL</td>
<td>natural gas liquids</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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</tr>
<tr>
<td>NMFS</td>
<td>National Marine Fisheries Service</td>
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</tr>
<tr>
<td>NO</td>
<td>nitrogen oxide</td>
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**List of Abbreviations and Acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>NO₂</td>
<td>nitrogen dioxide</td>
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<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
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<tr>
<td>NOD</td>
<td>Notice of Determination</td>
</tr>
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<td>NOI</td>
<td>Notice of Intent</td>
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<td>NOP</td>
<td>Notice of Preparation</td>
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<td>NOₓ</td>
<td>nitrogen oxides</td>
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<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<td>NPL</td>
<td>National Priority List</td>
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<td>NRC</td>
<td>National Response Center</td>
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<td>NRHP</td>
<td>National Register of Historic Places</td>
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<tr>
<td>O₃</td>
<td>ozone</td>
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<td>OCS</td>
<td>outer continental shelf</td>
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<tr>
<td>OES</td>
<td>Office of Emergency Services</td>
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<tr>
<td>OIT</td>
<td>Operator Interface Terminals</td>
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<tr>
<td>OPA</td>
<td>Oil Pollution Act</td>
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<tr>
<td>OPR</td>
<td>Office of Planning and Research</td>
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<tr>
<td>OSCP</td>
<td>Oil Spill Contingency Plan</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
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<td>OSPR</td>
<td>Office of Spill Prevention and Response</td>
</tr>
<tr>
<td>OSPRA</td>
<td>Oil Spill Prevention and Response Act</td>
</tr>
<tr>
<td>OSRV</td>
<td>Clean Seas Oil Spill Response Vessel</td>
</tr>
<tr>
<td>Pb</td>
<td>lead</td>
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<tr>
<td>PCB</td>
<td>polychlorinated biphenyl</td>
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<tr>
<td>Phase I ESA</td>
<td>Environmental Site Assessment</td>
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<tr>
<td>PM</td>
<td>particulate matter</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>particulate matter less than 2.₅ microns</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>particulate matter less than 1₀ microns</td>
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<tr>
<td>PSV</td>
<td>Pressure Safety Valve</td>
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<tr>
<td>PTO</td>
<td>Permit to Operate</td>
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<td>PTTC</td>
<td>West Coast Petroleum Technology Transfer Council</td>
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<tr>
<td>PUC</td>
<td>California Public Utilities Commission</td>
</tr>
<tr>
<td>QRA</td>
<td>Quantitative Risk Assessment</td>
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<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<tr>
<td>RMS</td>
<td>Remote Monitoring System</td>
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<td>ROC</td>
<td>Reactive Organic Carbon</td>
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<tr>
<td>ROG</td>
<td>Reactive Organic Gas</td>
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<tr>
<td>ROSF</td>
<td>Rincon Onshore Separation Facility</td>
</tr>
<tr>
<td>ROW</td>
<td>Right-of-Way</td>
</tr>
<tr>
<td>RP</td>
<td>Recommended Practice</td>
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<tr>
<td>RSA</td>
<td>Research and Special Programs Administration</td>
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<tr>
<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
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<tr>
<td>SAFE</td>
<td>Safety Analysis Function Evaluation</td>
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<tr>
<td>SBCAG</td>
<td>Santa Barbara County Association of Governments</td>
</tr>
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<td>SBCFD</td>
<td>Santa Barbara County Fire Department</td>
</tr>
<tr>
<td>SBMTD</td>
<td>Santa Barbara Metropolitan Transit District</td>
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<tr>
<td>SCADA</td>
<td>Supervisory Control and Data Acquisition</td>
</tr>
<tr>
<td>SCE</td>
<td>Southern California Edison</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>--------------</td>
<td>--------------------------------------------------</td>
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<tr>
<td>SCEC</td>
<td>Southern California Earthquake Center</td>
</tr>
<tr>
<td>SCH</td>
<td>State Clearinghouse</td>
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<tr>
<td>SCUBA</td>
<td>self-contained underwater breathing apparatus</td>
</tr>
<tr>
<td>SFA</td>
<td>Sustainable Fisheries Act</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Office</td>
</tr>
<tr>
<td>SIMQAP</td>
<td>Safety, Inspection, Maintenance and Quality Assurance Program</td>
</tr>
<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
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<tr>
<td>SIRT</td>
<td>Sustained Incident Response Team</td>
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<tr>
<td>SLIC</td>
<td>Spills, Leaks, Investigations and Cleanups List</td>
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<tr>
<td>SO₂</td>
<td>sulfur dioxide</td>
</tr>
<tr>
<td>SPCC</td>
<td>Spill Prevention Control and Countermeasure Plan</td>
</tr>
<tr>
<td>SQG</td>
<td>Small Quantity Generator</td>
</tr>
<tr>
<td>TAC</td>
<td>Toxic Air Contaminant</td>
</tr>
<tr>
<td>TOSCO</td>
<td>Shell and Conoco Phillips</td>
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<tr>
<td>TPH</td>
<td>Total Petroleum Hydrocarbons</td>
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<tr>
<td>TSS</td>
<td>Traffic Separation Scheme</td>
</tr>
<tr>
<td>UBC</td>
<td>Uniform Building Code</td>
</tr>
<tr>
<td>UCSB</td>
<td>University of California, Santa Barbara</td>
</tr>
<tr>
<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
</tr>
<tr>
<td>USCG</td>
<td>U.S. Coast Guard</td>
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<tr>
<td>USDA</td>
<td>U.S. Department of Agriculture</td>
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<tr>
<td>USEPA</td>
<td>U.S. Environmental Protection Agency</td>
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<tr>
<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
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<tr>
<td>USGS</td>
<td>U.S. Geological Survey</td>
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<tr>
<td>UST</td>
<td>Underground Storage Tank</td>
</tr>
<tr>
<td>VMC</td>
<td>Visual Modification Class</td>
</tr>
<tr>
<td>VRU</td>
<td>Vapor Recovery Unit</td>
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</table>
GLOSSARY OF TECHNICAL TERMS

Bottomhole – The bottom of a well.

Caisson – A retaining, watertight structure used in geotechnical engineering.

Casing – Steel pipe cemented in place during the construction process to stabilize the wellbore. The casing forms a major structural component of the wellbore and serves several important functions: preventing the formation wall from caving into the wellbore, isolating the different formations to prevent the flow or crossflow of formation fluid, and providing a means of maintaining control of formation fluids and pressure as the well is drilled.

Electric submersible pump – An artificial-lift system that utilizes a downhole pumping system that is electrically driven. The pump typically comprises several staged centrifugal pump sections that can be specifically configured to suit the production and wellbore characteristics of a given application.

Fall-off test – A pressure test in which a reservoir is pressurized with water, then the reduction in pressure over time is measured. This allows for analysis of the rate of leakage out of (or influx into) the reservoir related to adjacent reservoirs, aquifers, improperly sealed wells, etc.

Gas-Liquid and Liquid-Liquid Cyclone Separator – Compact vertical vessels mounted on Well 421-2 that subjects incoming fluids to a hydraulically created vortex and centrifugal forces, causing the heavier liquid particles to separate liquid and gas streams.

Heater treater – A vessel that uses heat to treat oil-water emulsions so the oil can be accepted by the pipeline or transport.

Mud line – The sea bottom, interface between ocean and land.

SCADA – Supervisory Control and Data Acquisition system, a computational pipeline monitoring system.

Shoe plug – A concrete plug at the bottom of a string of open casing.

String – An assembled length of steel pipe configured to suit a specific wellbore. The sections of pipe are connected and lowered into a wellbore, then cemented in place. Casing is run to protect or isolate formations adjacent to the wellbore.

Sub-surface safety valve – A safety device installed in the upper wellbore to provide emergency closure of the producing conduits in the event of an emergency. The valve is charged via hydraulic fluid and is designed to be fail-safe, so that the wellbore is isolated in the event of any system failure or damage to the surface production-control facilities.

Surface plug – A concrete plug placed from the surface down to a variable depth in the wellbore – typically 50 feet in modern operations.

Surface safety valve – A safety valve installed at the top of the wellbore to prevent uncontrolled flow from the well, this valve would be failsafe and actuated by a charge of nitrogen gas.

Well cellar – A pit in the ground to provide additional height between the rig floor and the wellhead to accommodate the installation of blowout preventers and other equipment. It also collects drainage water and other fluids for disposal.

Wellhead – The system of spools, valves and assorted adapters that provide pressure control of a production well.
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