



# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**Mary D. Nichols, Chairman**  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

**Edmund G. Brown Jr.**  
Governor

August 8, 2011

Dear Sir or Madam:

The Stationary Source Division of the Air Resources Board (ARB) is requesting California refineries provide the data listed below to ARB by August 19, 2011. These data are necessary to inform analyses of options on revisions to the treatment of crude oil, imported finished product, and imported additives in the Low Carbon Fuel Standard. Those data designated as confidential must be accompanied by a Confidential Information Submittal Form, which is enclosed with the survey.

For each refinery, please provide the data listed below for each year from 2006 through 2010. Electronic forms (in excel spreadsheet format) are available for reporting the data at: <http://www.arb.ca.gov/fuels/lcfs/refisurv/refinerysurvey.htm>. Please email the completed spreadsheet to: [mansingh@arb.ca.gov](mailto:mansingh@arb.ca.gov) marked with the subject "Oil Refinery Survey."

- Please provide the name of the company as well as the location and capacity of the refinery for which data is being reported. Also provide name, phone, email and title of the person to be contacted by ARB if we have questions about the information provided.
- Please provide the volume and marketable crude oil name for all crude refined at the facility that is produced in California using thermal enhanced oil recovery (TEOR) methods.
- Please provide the volume and marketable crude oil name for all crude refined at the facility that is produced in California using non-TEOR methods.
- For each crude imported to California, please provide the country (or state, if the United States is the country) of origin, the marketable crude oil name, and the volume imported. Also, indicate if the crude is on the non-high carbon intensity crude oil list attached to Advisory 10-04A (attached).
- For each additive or blendstock (not including ethanol) imported into California, please provide a description of the additive or blendstock, the origin, and the volume.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

Sir or Madam

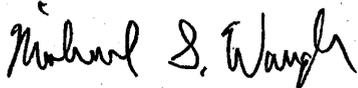
August 8, 2011

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- For each source of finished product imported to California, please provide a description of the finished product, the origin, and the volume.
- Please provide a description of each product produced at the refinery, the volume produced, and the percent exported from California.

If you have questions, please contact me at (916) 322-6020, or email: [mwaugh@arb.ca.gov](mailto:mwaugh@arb.ca.gov); or Mr. John D. Curtis, Manager, Alternative Fuels Section at (916) 323-2661, or email: [jcourtis@arb.ca.gov](mailto:jcourtis@arb.ca.gov)

Sincerely,



Michael S. Waugh, Chief  
Transportation Fuels Branch

Enclosures

cc: Mr. John D. Curtis, Manager  
Alternative Fuels Section

## CONFIDENTIAL INFORMATION SUBMITTAL FORM

If you wish to designate any information contained in your survey data as **CONFIDENTIAL INFORMATION**, please provide the data requested below and return it with your completed survey forms.

In accordance with Title 17, California Code of Regulations (CCR), sections 91000 to 91022, and the California Public Records Act (Government Code Section 6250 et seq.), the information that a company provides to the Air Resources Board (ARB) may be released (1) to the public upon request, except trade secrets which are not emissions data or other information which is exempt from disclosure or the disclosure of which is prohibited by law; and (2) to the U.S. Environmental Protection Agency, which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulation; and (3) to other public agencies provided that those agencies preserve the protections afforded information which is identified as a trade secret, or otherwise exempt from disclosure by law (Section 39660(e)).

Trade secrets as defined in Government Code Section 6254.7 are not public records and therefore will not be released to the public. However, the California Public Records Act provides that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. On the other hand, the information used in calculation information is a trade secret.

If any company believes that any of the information it may provide is a trade secret or otherwise exempt from disclosure under any other provision of law, **it must identify the confidential information as such at the time of submission to ARB and must provide the name, address, and telephone number of the individual to be consulted**, if ARB receives a request for disclosure or seeks to disclose the data claimed to be confidential. ARB may ask the company to provide documentation of its claim of trade secret or exemption at a later date. Data identified as confidential will not be disclosed unless ARB determines, in accordance with the above referenced regulations, that the data do not qualify for a legal exemption from disclosure. The regulations establish substantial safeguards before any such disclosure.

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In accordance with the provisions of Title 17, California Code of Regulations, sections 91000 to 91022, and the California Public Records Act (Government Code Sections 6250 et seq.),

### Company

**Name:** \_\_\_\_\_ declares that only those portions specifically identified and submitted in response to the California Air Resources Board's information request on the survey are confidential "**trade secret**" information, and requests that it be protected as such from public disclosure. All inquiries pertaining to the confidentiality of this information should be directed to the following person:

Name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Email: \_\_\_\_\_



# Regulatory Advisory

July 2011



## Low Carbon Fuel Standard (LCFS) Supplemental Regulatory Advisory 10-04A

### SCOPE

The Air Resources Board (ARB) is issuing a Supplemental Regulatory Advisory today, 10-04A (Supplemental Advisory 10-04A), which goes into effect July 1, 2011. This Supplemental Advisory 10-04A further elaborates on the guidance provided in Regulatory Advisory 10-04, which remains in effect, as specified in that advisory, and is unmodified except as clarified in this supplemental advisory. This Supplemental Advisory 10-04A will remain in effect in conjunction with Regulatory Advisory 10-04 through March 31, 2012, unless superseded by a subsequent ARB advisory or notice.

### BACKGROUND

On April 23, 2009, the California Air Resources Board (ARB, CARB or Board) approved for adoption the LCFS regulation pursuant to the California Global Warming Solutions Act of 2006. The regulation became effective on January 12, 2010, and was codified at title 17, California Code of Regulations, sections 95480-95490. Additional provisions became effective on April 15, 2010, and were codified in the same sections. The combined final regulation order can be found at: <http://www.arb.ca.gov/regact/2009/lcfs09/lcfscombfinal.pdf>. The LCFS will reduce greenhouse gas (GHG) emissions by reducing the carbon intensity of transportation fuels used in California by an average of 10 percent by the year 2020. Carbon intensity is a measure of the GHG emissions associated with the combination of all of the steps in the "lifecycle" of a transportation fuel. While carbon intensity (CI) standards were not applicable in 2010 (the first year of the regulation), compliance with the reporting and recordkeeping requirements is required for all years, including 2010.

On November 18, 2010, staff presented to the Board an update on LCFS implementation activities, including the development of the LCFS Reporting Tool, the proposed path forward on addressing land use change after receiving recommendations from the Expert Workgroup subgroups, the development of a screening tool for high-carbon-intensity crude oils, and several others. Through Resolution 10-49, the Board directed staff to issue guidelines regarding the implementation of the LCFS for 2011. Regulatory Advisory 10-04 represents those guidelines, and this Supplemental Advisory 10-04A clarifies specific provisions in Advisory 10-04.

### DEFINITIONS

For purposes of this Supplemental Regulatory Advisory, "we" means ARB, the Board, or ARB staff, and "Executive Officer" refers to the ARB Executive Officer or his or her designee. Also, "this advisory period" means the period during which this Supplemental Regulatory Advisory will remain in effect, which is January 1, 2011, through March 31, 2012, except as otherwise specified below or superseded by a subsequent ARB advisory or notice. Unless otherwise stated, all references to "section" are to the LCFS regulation, and references to the "Lookup Table" are to one or both of the carbon intensity lookup tables in section 95486(b)(1) of the LCFS regulation.

### OVERVIEW

There are three main objectives for this supplemental advisory. First, this supplemental advisory addresses the need for guidance on the use of a generic CI value for biomass-based diesel products, similar to what was provided in Regulatory Advisories 10-02 and 10-03 but was inadvertently omitted in Regulatory Advisory 10-04. Second, this supplemental advisory extends to the end of 2011 the guidance relating to high-carbon-intensity crude oil (HCICO) that was provided in Regulatory Advisory 10-04. Further, this supplemental advisory provides additional guidance on the treatment of credits and deficits generated from the blending of CARBOB or CARB diesel derived from potential-HCICO with ethanol or biomass-based diesel, respectively, which was noted as a future action in Regulatory Advisory 10-04.

## ELECTRONIC REPORTING REQUIREMENTS

### A. Current Action: Use of Generic CI Value for Ethanol and Biomass-Based Diesel

Typically, a regulated party that purchases biomass-based diesel (as defined in section 95481(a)(9)) for blending with CARB diesel would be provided with documentation on the carbon intensity of that biomass-based diesel. However, there may be situations during this advisory period where a regulated party is in a position to purchase biomass-based diesel for which the CI is indeterminate and incapable of being reasonably determined. In such cases, we will administratively allow the regulated party for that biomass-based diesel to use the CI value of 94.71 g CO<sub>2</sub>e per megajoule (MJ), which is the baseline CI value for diesel in the Lookup Table in section 95486(b). For purposes of this Supplemental Advisory 10-04A and to amend Advisory 10-04, "incapable of being reasonably determined" means no CI value for the biomass-based diesel (or ethanol, as was discussed in Advisory 10-04) has been established by a person or otherwise listed by ARB through its list of registered biofuel facilities (see <http://www.arb.ca.gov/fuels/lcfs/reportingtool/registeredfacilityinfo.htm>) or the Method 2A/2B application process (see <http://www.arb.ca.gov/fuels/lcfs/2a2b/2a-2b-apps.htm>).

### B. Current Action: Use of Interim CI Value for HCICO-Related Reporting and Annual Credit Balances

In LCFS Regulatory Advisory 10-04, we stated that a regulated party for CARBOB or diesel fuel derived from any HCICO or potential HCICO "may continue to use" the Lookup Table values for CARBOB and diesel, provided specified contract and delivery date criteria were met. In this Part B, we are extending but further clarifying the phrase "may continue to use" for HCICO or potentially HCICO feedstocks as follows. Specifically, for purposes of reporting through the LCFS Reporting Tool (LRT) and in annual credit balance calculations, a regulated party may use through March 31, 2012, the baseline CI value of 95.86 g CO<sub>2</sub>e/MJ for CARBOB or 94.71 g CO<sub>2</sub>e/MJ for diesel fuel, whichever applies, irrespective of whether the fuel or blendstock was derived from a non-HCICO, a HCICO, or a potential-HCICO. This provision applies only if the contract for such crude is executed by December 31, 2011, and the crude is delivered by March 31, 2012. A regulated party operating under this administrative action must maintain, and submit to the Executive Officer within 20 days after a written request, records of the volumes and crude marketing names (aka "marketable crude oil name") for all imported crudes.

Note that the CI and volumes of fuels and blendstocks derived from all crudes, including HCICOs and potential HCICOs, which are delivered prior to December 31, 2011, must be accounted for in the 2011 annual credit balance calculation. On the other hand, products derived from HCICO or potential HCICO, which are delivered between January 1, 2012 and March 31, 2012, inclusive, and for which the contract was executed by December 31, 2011, must be accounted for in the 2012 annual credit balance calculation. Such HCICOs and potential HCICOs delivered in Q1 2012 are subject to Part C below except for subpart C(2) and Table 2. The treatment of non-HCICOs, HCICOs, and potential-HCICOs for credit/deficit generation is addressed in the next section.

### C. Current Action: Calculation and Treatment of Credits & Deficits for Fuels/Blendstocks Derived from Potentially High Carbon-Intensity Crude Oils

While Part B above addresses the use of the baseline CI values for reporting and annual credit balance calculations for CARBOB and diesel fuels and blendstocks, there remains the question of how to treat credits/deficits generated for a fuel pool that is comprised in some part of fuel/blendstock derived from potential-HCICO. Pursuant to Resolution 10-49, ARB staff is addressing the generation and banking of credits during this advisory period, as potentially affected by 2011 crude oil purchases that are not part of the 2006 baseline. Accordingly, we will administratively provide the following actions:

- (1) No fuel or blendstock sold, supplied, or offered for sale in California during this advisory period will be deemed in violation of the LCFS regulation solely because it was derived wholly or in part from non-HCICO, HCICO, or potential HCICO; and
- (2) A regulated party's annual credit balance is to be calculated pursuant to section 95484(b)(2) and using the approach specified in Part B above. Accordingly, any credits generated during this advisory period must be adjusted by the incremental deficits due to HCICO and potential-HCICO, as specified in Tables 1 and 2 below:

**Table 1: Incremental Deficits and Credit Adjustments for Products Derived from Non-HCICO**

If a crude:	Then:	Therefore, the regulated party:
<ul style="list-style-type: none"> <li>• is "included in the 2006 California base crude mix";</li> <li>• is listed in Table 3 of the Attachment to this Supplemental Advisory;</li> <li>• is not listed in Table 3 of the Attachment to this Supplemental Advisory at this time but is listed as a "non-HCICO" in a subsequent ARB advisory or notice;</li> <li>• has been determined by the Executive Officer or by ARB staff analysis to have a crude oil production and transport CI of 15.00 g CO<sub>2</sub>e/MJ or less; or</li> <li>• is used to produce CARBOB, finished gasoline, or diesel fuel outside California, and that CARBOB, finished gasoline, or diesel fuel is subsequently imported into California.</li> </ul>	<p>the crude is deemed not a HCICO</p>	<p>has no incremental deficits. All credit/deficit calculations for a fuel or blendstock derived from such crude shall use the baseline CI values for CARBOB and diesel (95.86 gCO<sub>2</sub>e/MJ and 94.71 gCO<sub>2</sub>e/MJ, respectively).</p>

**Table 2: Incremental Deficits and Credit Adjustments for Products Derived from HCICO or Potential-HCICO**

If a crude:	Then:	Therefore, the regulated party:
<ul style="list-style-type: none"> <li>• is none of the above in Table 1, and is either:               <ul style="list-style-type: none"> <li>○ one for which the Executive Officer has approved a Method 2B application pursuant to section 95486(b)(2)(A)2.a.ii., or</li> <li>○ one for which the Executive Officer or ARB staff analysis has determined that the crude oil production and transport CI is greater than 15.00 g CO<sub>2</sub>e/MJ.</li> </ul> </li> </ul>	<p>the crude is deemed a HCICO</p>	<ul style="list-style-type: none"> <li>• must calculate its HCICO incremental deficits pursuant to section 95486(b)(2)(A)2.a. using either the CI value approved by the Executive Officer under Method 2B or the CI value determined by ARB staff analysis for the HCICO-derived product, and</li> <li>• may use without restriction any credits remaining after the regulated party's 2011 annual credit balance has been adjusted with the incremental deficits.</li> </ul>
<ul style="list-style-type: none"> <li>• is none of the above</li> </ul>	<p>the crude is deemed to be a potential-HCICO</p>	<p>has the following options that apply only when its 2011 annual credit balance is positive (i.e. there is a net credit); if the balance is negative (i.e. there is a net deficit), that deficit must be carried over into 2012 for reconciliation in all cases.</p> <p><u>Option 1</u></p> <ul style="list-style-type: none"> <li>• Incremental HCICO deficits are set at zero; and</li> <li>• No net credits for 2011 can be traded or transferred to 2012 or any subsequent year.</li> </ul> <p>or</p> <p><u>Option 2</u></p> <ul style="list-style-type: none"> <li>• Any net credit for 2011 stays in the regulated party's bank, but it cannot be accessed until the crude has been determined to be either non-HCICO or HCICO with a designated CI value, and adjusted as follows;               <ul style="list-style-type: none"> <li>○ If the crude is determined to be non-HCICO, there are no incremental deficits and no further adjustments are needed;</li> <li>○ If the crude is determined to be HCICO, its CI value, determined either under Method 2B or other Executive Officer-approved method, must be used to calculate incremental deficits pursuant to section 95486(b)(2)(A)2.a. and the 2011 net credits must be adjusted accordingly; and</li> </ul> </li> <li>• Any net credit remaining after the above incremental deficit adjustment can be carried over to 2012 and beyond.</li> </ul> <p>or</p> <p><u>Option 3</u></p> <ul style="list-style-type: none"> <li>• The CI values of 107.79 gCO<sub>2</sub>e/MJ for CARBOB and 106.64 gCO<sub>2</sub>e/MJ for diesel fuel must be used to calculate incremental deficits pursuant to section 95486(b)(2)(A)2.a. and the 2011 annual credit balance; and</li> <li>• Any remaining 2011 net credits can be carried over into 2012 and beyond without restriction.</li> </ul>

The incremental deficits applied toward credit carry forward restrictions as specified in Table 2 will be retained by CARB in an account that cannot be accessed by the regulated party subject to further clarification of the treatment of crudes in the LCFS. Under no circumstances shall ARB be held liable for any change in value for any credits held in such accounts or for any other consequences related to or resulting from the holding of credits in such accounts.

As already provided in the LCFS regulation, a regulated party applying the above guidance to its credit/deficit calculation will need to keep and maintain adequate documentation to support its claimed volumes and CI of fuels/blendstocks.

#### **FOR MORE INFORMATION**

Currently, the LRT can be accessed at <https://ssl.arb.ca.gov/LCFSRT>, as specified in a listserv announcement on September 2, 2010. Other LRT-related materials can be accessed at: <http://www.arb.ca.gov/fuels/lcfs/workgroups/workgroups.htm>. The final regulation order and other rulemaking documents can be found in the LCFS rulemaking website at: <http://www.arb.ca.gov/regact/2009/lcfs09/lcfscombofinal.pdf>. For any questions regarding this supplemental advisory, please contact Mr. Floyd Vergara, Chief, Alternative Fuels Branch at (916) 327-5986 or via email at [fvergara@arb.ca.gov](mailto:fvergara@arb.ca.gov), or Mr. Mike Waugh, Chief, Transportation Fuels Branch at (916) 322-6020 or via email at [mwaugh@arb.ca.gov](mailto:mwaugh@arb.ca.gov). If you need this document in an alternate format or language, please contact Mr. Stephen d'Esterhazy at (916) 323-7227 or [sdesterh@arb.ca.gov](mailto:sdesterh@arb.ca.gov). TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

## ATTACHMENT

During this advisory period, the Air Resources Board's Executive Officer considers each of the following marketable crude oil names as representing a crude oil source that is "not a high carbon intensity crude oil" (aka "non-HCICO"), as that term is used in section 95486(b)(2)(A)1. of the Low Carbon Fuel Standard regulation. Note that this list is subject to change based on further ARB staff review and analysis.

**Table 3. List of Non-HCICO Sources**

Designation	Country	Load Point
Algerian Condensate	Algeria	Loading Ports: Arzew & Bejaia
Saharan Blend	Algeria	Loading Ports: Arzew, Bejaia, Sidi Kerir, Skikda
Zarzaitine	Algeria	Loading Port: La Skhirra, Tunisia
Canadon Seco	Argentina	Caleta Olivia Single Buoy Mooring (SBM) off Comodoro Rivadavia
Escalante	Argentina	Caleta Cordoya Single Buoy Mooring (SBM) off Comodoro Rivadavia
Medanito	Argentina	Puerto Rosales in the port of Bahia Blanca - two offshore SBMs
Rincon	Argentina	San Vicente Bay loading terminal in Concepcion, Chile
Bayu-Undan	Australia	Loading Port: Liberdade FPSO
Cossack	Australia	Loading Port: Cossack Pioneer FPSO
Enfield	Australia	Loading Port: Nganhurra FPSO
Gippsland	Australia	Loading Port: Westernport Bay at Long Island Point and Crib Point
Laminaria Blend	Australia	Loading Port: The Northern Endeavour FPSO
Northwest Shelf Condensate	Australia	Loading Port: Dampier at Withnell Bay
Pyrenees	Australia	Loading Port: Pyrenees Venture FPSO
Stybarrow	Australia	Loading Port: Stybarrow Venture FPSO
Van Gogh	Australia	Loading Port: Ningaloo Vision FPSO
Vincent	Australia	Loading Port: Maersk Ngujima-yin FPSO
Azeri (BTC)	Azerbaijan	Loading Port: Ceyhan (Turkey)
Azeri Light	Azerbaijan	Loading Ports: Supsa, Batumi, Kulevi
Brunei Light	Brunei	Loading Port: Seria
Champion	Brunei	Loading Port: Seria
Seria Light	Brunei	Loading Port: Seria
Bow River	Canada	Pipeline: Enbridge Pipeline
Hibernia	Canada	Loading Port: Whiffen Head
Koch Alberta	Canada	Loading Port: Westbridge Marine Terminal
Sweet Mixed Blend	Canada	Enbridge Pipeline
Terra Nova	Canada	Loading Port: Whiffen Head
White Rose	Canada	Loading Port: Sea Rose FPSO
Doba Blend	Chad	Loading Port: Kome Kribi 1 FSO (Cameroon)
Changqing	China	Pipeline: Ma-Hui-Ning

Designation	Country	Load Point
Daqing	China	Loading Port: Dairen (Dalian)
Liu Hua	China	Loading Port: Nanhai Sheng Li FPSO
Nanhai Light	China	Loading Port: Nan Hai Fa Xian FPSO
Panyu	China	Loading Port: Panyu FPSO
Peng Lai	China	Loading Port: Hai Yang Shi You 117 FPSO
Shengli	China	Loading Port: Qingdao (T'sing Tao)
Cano Limon	Colombia	Loading Port: Covenas via 480-mile Cano Limon Pipeline
Castilla Blend	Colombia	Loading Port: Covenas via pipeline
Cusiana	Colombia	Loading Port: Covenas via 500-mile Ocesa pipeline
South Blend	Colombia	Loading Port: Tumaco
Vasconia	Colombia	Loading Port: Covenas via the Vasconia-Covenas pipeline
DUC	Denmark	Loading Port: Fredericia
Belayim Blend	Egypt	Loading Port: Wadi Feiran
Suez Blend	Egypt	Loading Port: Ras Shukheir
Alba Condensate	Equatorial Guinea	Loading Port: Punta Europa
Ceiba	Equatorial Guinea	Loading Port: Sendje Ceiba FPSO
New Zafiro Blend	Equatorial Guinea	Loading Port: Serpentina FPSO
Ardjuna	Indonesia	Loading Port: Ardjuna Terminal
Arun Condensate	Indonesia	Loading Port: Blang Lancang
Attaka	Indonesia	Loading Port: Santan Marine Terminal
Belanak	Indonesia	Loading Port: Belanak FPSO
Belida	Indonesia	Loading Port: Belida Platform
Bontang Return Condensate	Indonesia	Loading Port: Santan Terminal
Cepu	Indonesia	Loading Port: Cepu FSO
Cinta	Indonesia	Loading Port: Cinta Terminal
Handil Mix	Indonesia	Loading Port: Senipah Sea Terminal
Minas	Indonesia	Loading Port: Dumai Terminal
Senipah Condensate	Indonesia	Loading Port: Senipah Sea Terminal
West Seno	Indonesia	Loading Port: Santan
Widuri	Indonesia	Loading Port: Widuri
Azadegan	Iran	Loading Port: Kharg Island
Doroud	Iran	Loading Port: Kharg Island
Foroozan (Fereidoon)	Iran	Loading Port: Kharg Island & Sidi Kerir
Iranian Heavy	Iran	Loading Port: Kharg Island
Iranian Light	Iran	Loading Port: Kharg Island
Lavan Blend	Iran	Loading Port: Lavan Island
Nowruz-Sorush	Iran	Loading Port: Soorena FSU
Sirri	Iran	Loading Port: Sirri Island

Designation	Country	Load Point
Baobab	Ivory Coast	Loading Port: Baobab FPSO
CPC Blend	Kazakhstan	Loading Port: Yuzhnaya Ozereevka (Russia)
Karachaganak Condensate	Kazakhstan	Loading Ports: Primorsk (Russia), Odessa (Ukraine)
Kashagan	Kazakhstan	Loading Port: Ceyhan (Turkey)
Kumkol	Kazakhstan	Loading Ports: Batumi (Georgia) & Atasu-Alashankou Pipeline to China
Tengiz	Kazakhstan	Loading Ports: Odessa, Feodosiya, Batumi, Supsa, Kulevi
Kuwait Export	Kuwait	Loading Port: Mina al-Ahmadi
Ratawi (Wafra)	Kuwait	Loading Port: Mina Saud/Mina al-Zour
Abu Attifel	Libya	Loading Port: Zueitina
Al-Jurf	Libya	Loading Port: Farwah FPSO
Amna	Libya	Loading Port: Ras Lanuf
Bouri	Libya	Loading Port: Bouri FPSO
Brega	Libya	Loading Port: Marsa al-Brega
El-Sharara	Libya	Loading Port: Zawia Terminal via 435-mile Pipeline
Es Sider	Libya	Loading Port: Es Sider via Pipeline
Mellitah	Libya	Loading Port: Mellitah Terminal via Pipeline
Sarir	Libya	Loading Port: Marsa al-Hariga
Sirtica	Libya	Loading Port: Marsa al-Brega
Zueitina	Libya	Loading Port: Zueitina
Bintulu Condensate	Malaysia	Loading Port: Bintulu
Dulang	Malaysia	Loading Port: Dulang Terminal
Kikeh	Malaysia	Loading: Kikeh FPSO
Labuan	Malaysia	Loading Port: Labuan
Miri Light	Malaysia	Loading Port: Miri
Tapis	Malaysia	Loading Port: Terengganu
Khafji	Neutral Zone	Loading Port: Ras al-Khafji
Maari	New Zealand	Loading Port: Raroa FPSO
Tui	New Zealand	Loading Port: Umuroa FPSO
Alvheim	Norway	Loading Port: Alvheim FPSO
Asgard Blend	Norway	Loading Port: Asgard Platform
Balder	Norway	Loading Port: Balder FPSO
Draugen	Norway	Loading Port: Draugen Terminal
Ekofisk Blend	Norway	Loading Port: Tees River, Teesside, UK
Grane	Norway	Loading Port: Sture
Gullfaks Blend	Norway	Loading Ports: Gullfaks Platform, Mongstad Terminal
Heidrun	Norway	Loading Port: Mongstad
Jotun	Norway	Loading Ports: Jotun A FPSO
Njord	Norway	Loading Port: Njord Platform

Designation	Country	Load Point
Norne	Norway	Loading Ports: Norne FPSO & Mongstad
Ormen Lange Condensate	Norway	Loading Port: Nyhamma
Oseberg	Norway	Loading Port: Sture
Sleipner Condensate	Norway	Loading Port: Karsto
Snohvit Condensate	Norway	Loading Port: Melkoya
Statfjord Blend	Norway	Loading Ports: Statfjord Platforms, Mongstad
Troll	Norway	Loading Port: Mongstad
Volve	Norway	Loading Port: Navion Saga FSO
Loreto	Peru	Loading Port: Bayovar
Al Shaheen	Qatar	Loading Port: Al-Shaheen Platform
Dukhan	Qatar	Loading Port: Umm Said
Low Sulfur Condensate	Qatar	Loading Port: Ras Laffan
North Field Condensate	Qatar	Loading Port: Ras Laffan
Qatar Condensate	Qatar	Loading Port: Ras Laffan
Qatar Marine	Qatar	Loading Port: Halul Island
Dar Blend	Sudan	Loading Port: El Khair (Port Sudan)
Nile Blend	Sudan	Loading Port: Marsa Bashaver Crude Oil Marine Terminal
Souedie	Syria	Loading Ports: Banias, Tartous
Syrian Light	Syria	Loading Ports: Banias, Tartous
Bualuang	Thailand	Loading Port: Rubicon Vantage FPSO
Calypso	Trinidad & Tobago	Loading Port: Guayaguayare Bay Terminal
Murban	UAE - Abu Dhabi	Loading Port: Jebel Dhanna
Umm-Shaif	UAE - Abu Dhabi	Loading Port: Das Island
Upper Zakum	UAE - Abu Dhabi	Loading Port: Zirku Island
Zakum	UAE - Abu Dhabi	Loading Port: Das Island
Dubai	UAE - Dubai	Loading Port: Fateh
Alba	United Kingdom	Loading Port: Alba FPSO
Anasuria	United Kingdom	Loading Port: Anasuria FPSO
Beryl	United Kingdom	Loading Port: Beryl
Brent Blend	United Kingdom	Loading Port: Sullom Voe
Captain	United Kingdom	Loading Port: Captain FPSO
Clair	United Kingdom	Loading Port: Sullom Voe
Flotta	United Kingdom	Loading Port: Flotta
Foinaven	United Kingdom	Loading Port: Flotta West
Forties	United Kingdom	Loading Port: Hound Point
Liverpool Bay	United Kingdom	Loading Port: Liverpool Bay Platform
Schiehallion	United Kingdom	Loading Port: Sullom Voe
Triton	United Kingdom	Loading Port: Triton FPSO

<b>Designation</b>	<b>Country</b>	<b>Load Point</b>
Heavy Louisiana Sweet	USA	Pipeline Terminal: Empire
Light Louisiana Sweet	USA	Pipeline Terminal: St. James
Mars Blend	USA	Pipeline Terminal: Loop/Clovelly
Poseidon	USA	Pipeline Terminal: Houma
Southern Green Canyon	USA	Pipeline Terminals: Port Arthur, Texas City
Thunder Horse	USA	Pipeline Terminal: Loop/Clovelly
West Texas Intermediate	USA	Pipeline Terminals: Cushing, Midland
West Texas Sour	USA	Pipeline Terminal: Midland
Anaco Wax	Venezuela	Loading Port: Puerto La Cruz
Boscan	Venezuela	Loading Port: Bajo Grande
Merey	Venezuela	Loading Port: Puerto La Cruz Refinery
Mesa 30	Venezuela	Loading Port: Puerto La Cruz
Santa Barbara	Venezuela	Loading Port: Puerto La Cruz Refinery
Bach Ho	Vietnam	Loading Port: Bach Ho Platform
Rang Dong	Vietnam	Loading Port: Rang Dong MV17 FSO
Su Tu Den	Vietnam	Loading Port: Su Tu Den Terminal