contamination at the WATSON CENTER and/or whether such excavation was undertaken to ascertain if any pipelines beneath the WATSON CENTER were leaking.

**RESPONSE TO SPECIAL INTERROGATORY NO. 17:**

Carson Plant #7 line – maintenance work was performed on the line which included repairs and replacement on the lines; Iso-Butane – pipe replacement was made on the line and a connection was made to Carson Plant #8 line; installed new lines between Carson Plant and Unocal/Tosco Refinery; potholing was conducted to determine elevation on the line.

**SPECIAL INTERROGATORY NO. 18:**

Has SHELL ever transported petroleum or petroleum products of any kind through any of its pipelines that are or ever have been located within the WATSON CENTER?

**RESPONSE TO SPECIAL INTERROGATORY NO. 18:**

Yes.

**SPECIAL INTERROGATORY NO. 19:**

If SHELL has ever transported petroleum or petroleum products of any kind through any of its pipelines that are or ever have been located within the WATSON CENTER, describe in detail each such product, including, but not limited to, common names used to describe such products (e.g., crude oil, gasoline, condensate, jet fuel, fuel oil, bunker fuel, etc.), the range within the carbon chain for such products (e.g., C1-C6, C12-C30, etc.) and trade names.

**RESPONSE TO SPECIAL INTERROGATORY NO. 19:**

Crude oil, cc feed, coker gas oil, cat gas oil, diesel base, jet distillate, platformer feed, jet, diesel, regular and premium gasoline, mid-grade gasoline, platformate, alkylate, light and heavy cat gasoline, mター, solvents, clarified oil, flasher feed, sour #20, low sulfur cat feed, normal butane, Iso-butane, mixed butane, straight run gasoline, light coker gas oil C3C4 olefins, aviation gasoline, leaded gasoline (regular,
premium, mid-grade), #6 fuel oil, hydrogen.

SPECIAL INTERROGATORY NO. 20:

If SHELL has ever transported petroleum or petroleum products of any kind through any of its pipelines that are or ever have been located within the WATSON CENTER, state the time period(s) during which each pipeline transported each such product.

RESPONSE TO SPECIAL INTERROGATORY NO. 20:

Subsequent to the construction of the Wilmington and Dominguez refineries; specific time periods are unknown.

SPECIAL INTERROGATORY NO. 21:

If SHELL ever transported petroleum or petroleum products of any kind through any of its pipelines that are or ever have been located within the WATSON CENTER which were refined petroleum products, state the name, street address, city and state of the facility at which such products were or are refined.

RESPONSE TO SPECIAL INTERROGATORY NO. 21:

Shell Oil Company (Dominguez Site), 20945 Wilmington Avenue, Carson, CA 90810; Shell Oil Company (Wilmington Site), 1622 Sepulveda Blvd., Carson, CA 90810.

SPECIAL INTERROGATORY NO. 22:

Has SHELL ever transported any substance other than petroleum or petroleum products through any of its pipelines that are or ever have been located within the WATSON CENTER?

RESPONSE TO SPECIAL INTERROGATORY NO. 22:

Yes.

SPECIAL INTERROGATORY NO. 23:

If SHELL has ever transported any substance other than petroleum or petroleum products through any of its pipelines that are or ever have been located within the
WATSON CENTER, describe in detail each such substance including, but not limited to, common names, trade names and scientific names.

RESPONSE TO SPECIAL INTERROGATORY NO. 23:

Sour water was pumped between the two locations on the #1 and #6 lines. Fuel gas was transported between the two locations on the #2 line.

SPECIAL INTERROGATORY NO. 24:

If SHELL has ever transported any substance other than petroleum or petroleum products through any of its pipelines that are or ever have been located within the WATSON CENTER, state the name, street address, city and state of the facility at which each such substance was manufactured, created or processed prior to being placed in such pipeline(s).

RESPONSE TO SPECIAL INTERROGATORY NO. 24:

Shell Oil Company (Dominguez Site), 20945 Wilmington Avenue, Carson, CA 90810; Shell Oil Company (Wilmington Site), 1622 Sepulveda Blvd., Carson, CA 90810.

SPECIAL INTERROGATORY NO. 25:

If SHELL has ever transported any substance other than petroleum or petroleum products through any of its pipelines that are or ever have been located within the WATSON CENTER, state the time period(s) during which each pipeline transported each such product.

RESPONSE TO SPECIAL INTERROGATORY NO. 25:

Subsequent to the construction of the Wilmington and Dominguez refineries; specific time periods are unknown.

SPECIAL INTERROGATORY NO. 26:

Did SHELL ever install any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER?
RESPONSE TO SPECIAL INTERROGATORY NO. 26:
Yes.

SPECIAL INTERROGATORY NO. 27:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER, IDENTIFY the pipeline(s) for which each such device was installed.

RESPONSE TO SPECIAL INTERROGATORY NO. 27:
SHELL responds that its leak detection system is currently being utilized on the following operating pipelines: inter-refinery line #s 01 through 16, 18, 19 and 20; DEA Fat and DEA Lean; the sour water line had turbine meters installed.

SPECIAL INTERROGATORY NO. 28:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER, state the date that each such device was installed.

RESPONSE TO SPECIAL INTERROGATORY NO. 28:
All of the devices were installed in or about 1982.

SPECIAL INTERROGATORY NO. 29:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER, describe the device(s) installed by manufacturer, model name, model number and serial number.

RESPONSE TO SPECIAL INTERROGATORY NO. 29:
Controllotron Model 480 Sonic Flow Meters; Rossmount 1151PG8 pressure transmitters; and Systronics Supervisory system. On inter-refinery line #s 14 and 18, D.P. transmitters and orifice plates were used. The sour water line had turbine meters installed.

SPECIAL INTERROGATORY NO. 30:
If SHELL ever installed any type of leak detection device with respect to any of...
the pipelines that it ever installed within the WATSON CENTER, IDENTIFY each
and every PERSON who has possession or custody of any records or other
DOCUMENTS produced or created with respect to the installation and operation of
each such device.

RESPONSE TO SPECIAL INTERROGATORY NO. 30:

Dave Smith, John Fortson, Wilmington Manufacturing Operations.

SPECIAL INTERROGATORY NO. 31:

If SHELL ever installed any type of leak detection device with respect to any of
the pipelines that it ever installed within the WATSON CENTER, IDENTIFY each
and every PERSON who has ever had responsibility for monitoring such leak detection
devices on behalf of SHELL.

RESPONSE TO SPECIAL INTERROGATORY NO. 31:

Wilmington Manufacturing Dispatch Center (Wilmington), Foreman and
Operator.

SPECIAL INTERROGATORY NO. 32:

If SHELL ever installed any type of leak detection device with respect to any of
the pipelines that it ever installed within the WATSON CENTER, did any of the
devices ever detect a leak?

RESPONSE TO SPECIAL INTERROGATORY NO. 32:

No.

SPECIAL INTERROGATORY NO. 33:

If SHELL ever installed any type of leak detection device with respect to any of
the pipelines that it ever installed within the WATSON CENTER which ever detected
a leak, state the date each leak was detected.

RESPONSE TO SPECIAL INTERROGATORY NO. 33:

Not applicable.
SPECIAL INTERROGATORY NO. 34:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER which ever detected a leak, describe the substance that leaked.
RESPONSE TO SPECIAL INTERROGATORY NO. 34:
Not applicable.

SPECIAL INTERROGATORY NO. 35:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER which ever detected a leak, state the volume of loss with respect to each such leak.
RESPONSE TO SPECIAL INTERROGATORY NO. 35:
Not applicable.

SPECIAL INTERROGATORY NO. 36:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER which ever detected a leak, IDENTIFY each and every DOCUMENT that discusses, mentions or refers to, in whole or in part, each and every such leak.
RESPONSE TO SPECIAL INTERROGATORY NO. 36:
Not applicable.

SPECIAL INTERROGATORY NO. 37:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER which ever detected a leak, IDENTIFY each and every PERSON who currently has possession or custody of any DOCUMENTS that in any manner concern each and every such leak.
RESPONSE TO SPECIAL INTERROGATORY NO. 37:
Not applicable.
SPECIAL INTERROGATORY NO. 38:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER which ever detected a leak, IDENTIFY each and every PERSON to whom such leaks were reported.
RESPONSE TO SPECIAL INTERROGATORY NO. 38:
Not applicable.

SPECIAL INTERROGATORY NO. 39:
If SHELL ever installed any type of leak detection device with respect to any of the pipelines that it ever installed within the WATSON CENTER which ever detected a leak, were any soils tests ever conducted with respect to any leak?
RESPONSE TO SPECIAL INTERROGATORY NO. 39:
Not applicable.

SPECIAL INTERROGATORY NO. 40:
If SHELL ever conducted any soils test with respect to any leak detected by any leak detection device installed with respect to any of the pipelines that SHELL ever installed within the WATSON CENTER, state the date of each such test.
RESPONSE TO SPECIAL INTERROGATORY NO. 40:
Not applicable.

SPECIAL INTERROGATORY NO. 41:
If SHELL ever conducted any soils test with respect to any leak detected by any type of leak detection device installed with respect to any of the pipelines that SHELL ever installed within the WATSON CENTER, state the name of each and every PERSON who conducted the tests.
RESPONSE TO SPECIAL INTERROGATORY NO. 41:
Not applicable.
SPECIAL INTERROGATORY NO. 42:

If SHELL ever conducted any soils test with respect to any leak detected by any type of leak detection device installed with respect to any of the pipelines that SHELL ever installed within the WATSON CENTER, IDENTIFY each and every PERSON who currently has possession or custody of any DOCUMENTS that discuss, mention or refer to, in whole or in part, such tests.

RESPONSE TO SPECIAL INTERROGATORY NO. 42:

Not applicable.

SPECIAL INTERROGATORY NO. 43:

Has SHELL ever had any policy, guideline or practice with respect to the circumstances under which a pipeline should be replaced?

RESPONSE TO SPECIAL INTERROGATORY NO. 43:

No. SHELL’s replacement of its pipelines is based upon engineering judgment.

SPECIAL INTERROGATORY NO. 44:

If SHELL has ever had any policy, guideline or practice with respect to the circumstances under which a pipeline should be replaced, state each and every such policy, guideline or practice in full.

RESPONSE TO SPECIAL INTERROGATORY NO. 44:

Not applicable.

SPECIAL INTERROGATORY NO. 45:

IDENTIFY each and every DOCUMENT which constitutes or describes any policy, guideline or practice of SHELL with respect to the circumstances under which a pipeline should be replaced.

RESPONSE TO SPECIAL INTERROGATORY NO. 45:

Not applicable.

SPECIAL INTERROGATORY NO. 46:

Has SHELL ever had any policy, guideline or practice with respect to steps that
should be taken to detect leaks in its pipelines?

RESPONSE TO SPECIAL INTERROGATORY NO. 46:

SHELL's normal practice of testing for leaks is performed on a more frequent basis than is required by industry standards since implementation of the requirements set by the California Safety Act.

SPECIAL INTERROGATORY NO. 47:

If SHELL has ever had any policy, guideline or practice with respect to steps that should be taken to detect leaks in its pipelines, state each and every such policy, guideline or practice in full.

RESPONSE TO SPECIAL INTERROGATORY NO. 47:

See response to no. 46, above.

SPECIAL INTERROGATORY NO. 48:

IDENTIFY each and every DOCUMENT which constitutes or describes any policy, guideline or practice of SHELL with respect to steps that should be taken to detect leaks in its pipelines.

RESPONSE TO SPECIAL INTERROGATORY NO. 48:

SHELL responds that it is producing all relevant documents in its files in response to plaintiff's first and second demand for production of documents. Any and all information falling within the parameters of this interrogatory is readily ascertainable in SHELL's Pipeline Inspection and Maintenance Manual which is contained in SHELL's production of documents.

SPECIAL INTERROGATORY NO. 49:

If SHELL has ever had any policy, guideline or practice with respect to steps that should be taken to detect leaks in its pipelines, was that policy, guideline or practice applied to any SHELL pipeline ever installed within the WATSON CENTER?
RESPONSE TO SPECIAL INTERROGATORY NO. 49:

Yes.

SPECIAL INTERROGATORY NO. 50:

If SHELL has ever applied any policy, guideline or practice with respect to steps that should be taken to detect leaks in any SHELL pipeline ever installed within the WATSON CENTER, IDENTIFY each and every PERSON with knowledge of such application.

RESPONSE TO SPECIAL INTERROGATORY NO. 50:

Roger Underwood, Manager, Shell Pipe Line; Chuck Paine, Remediation Manager, Shell Oil Products Company.

SPECIAL INTERROGATORY NO. 51:

If SHELL has ever applied any policy, guideline or practice with respect to steps that should be taken to detect leaks in any SHELL pipeline ever installed within the WATSON CENTER, IDENTIFY each and every DOCUMENT that discusses, mentions, or refers to, in whole or in part, any such application.

RESPONSE TO SPECIAL INTERROGATORY NO. 51:

None.

DATED: May 15, 1997

LAW OFFICES OF DAVID J. EARLE

DAVID J. EARLE
Attorneys for Defendant
SHELL OIL COMPANY
ORIGINAL VERIFICATION TO FOLLOW
STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

I have reviewed the foregoing SHELL OIL COMPANY’S RESPONSE TO PLAINTIFF AND CROSS-DEFENDANT WATSON LAND COMPANY’S FIRST SET OF SPECIAL INTERROGATORIES and know its contents.

CHECK APPLICABLE PARAGRAPH

☐ I am a party to this action. The matters stated in the foregoing document are true of my own knowledge except as to those matters which are stated on information and belief, and as to those matters, I believe them to be true.

☒ I am an Officer ○ a partner ☒ an agent of defendant SHELL OIL COMPANY, a party to this action, and am authorized to make this verification for and on its behalf, and I make this verification for that reason. ☒ I am informed and believed and on that ground allege that the matters stated in the foregoing document are true. ☐ The matters stated in the foregoing document are true of my own knowledge except as to those matters which are stated on information and belief, and as to those matters I believe them to be true.

☐ I am one of the attorneys for ____________________________. A party to this action. Such party is absent from the county of aforesaid where such attorneys have their offices, and I make this verification for and on behalf of that party for that reason. I am informed and believe and on that ground allege that the matters stated in the foregoing document are true.

Executed on May 15, 1997 at Carson, California.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

[Signature]

ROBERT DONNELLY
PROOF OF SERVICE

I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action; my business address is 138 North Brand Blvd., Suite 303, Glendale, CA 91203.

On May 15, 1997, I served the foregoing document described as SHELL OIL COMPANY'S RESPONSE TO PLAINTIFF AND CROSS-DEFENDANT WATSON LAND COMPANY'S FIRST SET OF SPECIAL INTERROGATORIES on the interested parties in this action by placing a true copy thereto enclosed in a sealed envelope addressed as follows:

SEE ATTACHED SERVICE LIST

I caused such envelope to be deposited in the mail at Glendale, California.

The envelope was mailed with postage thereon fully prepaid.

I am "readily familiar" with the firm's practice of collection and processing correspondence for mailing. It is deposited with U.S. postal service on that same day in the ordinary course of business. I am aware that on motion of party served, service is presumed invalid of postal cancellation date or postage meter date is more than 1 day after date of deposit for mailing affidavit.

Executed on May 15, 1997, at Glendale, California.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Sarah C. Galt
Attorneys for Plaintiffs

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BRIGHT AND BROWN
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Atlantic Richfield Company

Attorneys for George Pearson dba G&M Oil Company, Inc.

G&M Oil Company

Monsanto Chemical Company
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(310) 277-4110
Fax No. (310) 277-4730

Attorneys for Unocal Corporation and Unocal Oil Company of California dba UNOCAL.

Stauffer Management Co. and Rhone-Poulenc Basic Chemicals Co.

Remediation Capital Corp.

Attorneys for Mobil Oil Corporation
PLUMES B1 AND B2 - GASOLINE:
MAP OF EDC/EDB GROUNDWATER CONCENTRATIONS

PLUME B1
NO EDC/EDB DETECTED

PLUME B2 GASOLINE (EDC)

PLUME B2 GASOLINE (EDB)

EASTERN PIPELINE CORRIDOR

236th St.

Wilmington Ave.
May 11, 1979

Administrator, Environmental Protection Agency
Attention Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

Gentlemen:

In accordance with the regulations applicable to registration of fuel additives and your letter of November 30, 1978, we are submitting the completed forms for the motor vehicle gasoline for the 1st quarter of 1979.

We have updated the brand names of our motor gasolines covered in this report. Also, refer to our letter of March 23, 1979 registering DIPE as a component. Correct the name to Diisopropyl Ether (DIPE).

Please feel free to contact us if you have any questions concerning the information provided.

Yours very truly,

H. H. Williams
H. H. Williams, Manager
Quality Assurance - Logistics - Operations

Enclosures
**FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE**

1. **Fuel Manufacturer:** SHELL OIL COMPANY

2. **Address:** P. O. BOX 2463
HOUSTON, TEXAS 77001

3. **Period of this report (check one and fill in year):**
   - [X] (a) January through March 1979
   - [ ] (b) April through June
   - [ ] (c) July through September
   - [ ] (d) October through December

4. **Designated motor vehicle gasoline covered by this report (check one):**
   - [X] (a) Unleaded
   - [ ] (b) Lead, premium
   - [ ] (c) Lead, non-premium

5. **Brand name(s) of motor vehicle gasoline covered by this report (list):**
   - Super Shell; Premium Grade Gasoline (Unbranded); Specification Gasoline - Premium Grade.

6. **Production in this 3-month period of the gasoline covered by this report:** 275,562,000 gal.

7. **Additives previously reported for use in the gasoline covered by this report:**

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/filter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td></td>
<td>DuPont Oil Red B Liquid</td>
<td>5.30</td>
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<tr>
<td></td>
<td>Ethyl Automate Liquid Dye-Red B</td>
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<td></td>
<td>Ethyl Automate Liquid Dye-Red G</td>
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<tr>
<td></td>
<td>Ethyl Liqui-Di Red B</td>
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<tr>
<td></td>
<td>Morton Automate Red B</td>
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<tr>
<td></td>
<td>Calco Oil Red Y Liquid</td>
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<td>DuPont Tel Motor Antiknock Red-01</td>
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<td></td>
<td>DuPont &quot;Tetramix&quot; 25 Antiknock Red-01</td>
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<tr>
<td></td>
<td>DuPont &quot;Tetramix&quot; 50 Antiknock Red-01</td>
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<tr>
<td></td>
<td>DuPont &quot;Tetramix&quot; 50 Antiknock Orange-62</td>
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<td></td>
<td>Ethyl Antiknock Compound-MLA 500 Motor Mix (White No. 1)</td>
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<tr>
<td></td>
<td>Ethyl Antiknock Compound-TDI Motor Mix (White No. 1)</td>
<td>0</td>
</tr>
</tbody>
</table>

*List Additional Additives on Reverse*
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a) Commercial</td>
</tr>
<tr>
<td>Ethyl MIA 750 Motor Mix</td>
<td>1570.31</td>
</tr>
<tr>
<td>Nalkyl ME-50-1 Motor Mix</td>
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<tr>
<td>Nalkyl ME-75-1 Motor Mix</td>
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<tr>
<td>HCC Antiknock Compound-MAF-50R-TR</td>
<td>1608.53</td>
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<tr>
<td>HCC Antiknock Compound-TEF Motor Mix-TR</td>
<td>1376.86</td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7

(question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company
by its authorized agent H. H. Williams, Manager
Title Logistics - Quality Assurance
Date May 11, 1979

INSTRUCTIONS

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7

(question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company
by its authorized agent H. H. Williams, Manager
Title Logistics - Quality Assurance
Date May 11, 1979

INSTRUCTIONS

Applicability
Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)1367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission
Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission
One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions
Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
1. Fuel Manufacturer: SHELL OIL COMPANY

2. Address: P. O. BOX 2463
   HOUSTON, TEXAS 77001

3. Period of this report (check one and fill in year):
   - (a) January through March 1979 year
   - (b) April through June year
   - (c) July through September year
   - (d) October through December year

4. Designated motor vehicle gasoline covered by this report (check one):
   - (a) Unleaded X
   - (b) Lead, premium
   - (c) Lead, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   - Super Shell; Premium Grade Gasoline (Unbranded); Specification Gasoline-Premium Grade

6. Production in this 3-month period of the gasoline covered by this report: 275,562,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Additive Name</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td>HGC Antiknock Compound-HAF Motor Mix-50R-TRA</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PPG MAF 25 R Antiknock</td>
<td>1,153.67</td>
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<tr>
<td>Ethyl MMT</td>
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<tr>
<td>&quot;Tolad&quot; 286 Fuel Emulsion Preventive</td>
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<td>0</td>
</tr>
<tr>
<td>&quot;Tolad&quot; 318 Fuel Emulsion Preventive</td>
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</tr>
<tr>
<td>&quot;Tolad&quot; 326 Fuel Emulsion Preventive</td>
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</tr>
<tr>
<td>Nalco 5 RD-650 Fuel Emulsion Preventive</td>
<td>7.20</td>
<td>0</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733</td>
<td>8.59</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733-MDA-67</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 60</td>
<td>2.84</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 80</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(EPA/MUR)1368 (Rev. 11-77) (List Additional Additives on Reverse)
### FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Antioxidant 733 -</td>
<td></td>
</tr>
<tr>
<td>Toluene 90</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant FDA</td>
<td>0</td>
</tr>
<tr>
<td>Pitt Consol M-56</td>
<td>3.33, 0</td>
</tr>
<tr>
<td>DuPont Antioxidant A0-22</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Antioxidant A0-23</td>
<td>4.08, 0</td>
</tr>
<tr>
<td>DuPont Antioxidant A0-31</td>
<td>0</td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? ____________

(questions numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for ____________________________
by its authorized agent ____________________________
Title ____________________________
Date ____________________________

### INSTRUCTIONS

Applicability

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)1367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
**Fuel Manufacturer Quarterly Report for Motor Vehicle Gasoline**

1. **Fuel Manufacturer:** SHELL OIL COMPANY

2. **Address:** P.O. BOX 2463
   HOUSTON, TEXAS 77001

3. **Period of this report (check one and fill in year):**
   - [X] (a) January through March 1979
   - (b) April through June
   - (c) July through September
   - (d) October through December

4. **Designated motor vehicle gasoline covered by this report (check one):**
   - (a) Unleaded
   - [X] (b) Lead, premium
   - (c) Lead, non-premium

5. **Brand name(s) of motor vehicle gasoline covered by this report (list):**
   - Super Shell; Premium Grade Gasoline (Unbranded); Specification Gasoline-Premium

6. **Production in this 3-month period of the gasoline covered by this report:** 275,562,000 gal.

7. **Additives previously reported for use in the gasoline covered by this report:**

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b) Highest</td>
<td>(c) Lowest</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-33</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>UOP No. 5-S Antioxidant</td>
<td>1.17</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Metal Deactivator MDA-50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Metal Deactivator MDA-80</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator (DMD)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator 50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator 75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cardinal Metal Deactivator CDA-50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nalco 5403</td>
<td>4.43</td>
<td>0</td>
</tr>
<tr>
<td>ROKON</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Methyl Tertiary Butyl Ether (MTBE)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tertiary Butyl Alcohol (TBA)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diisopropyl Ether (DIPE)</td>
<td>0.16%V</td>
<td>0</td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, registered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 78). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7 (question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company

by its authorized agent

H. W. Williams, Manager

Title Logistics - Quality Assurance

Date May 11, 1979

INSTRUCTIONS

Applicability

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DURI1367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency

Attn: Office of Fuel and Fuel Additive Registration (MD-78)

Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
1. Fuel Manufacturer: SHELL OIL COMPANY

2. Address: P. O. BOX 2463

HOUSTON, TEXAS 77001

3. Period of this report (check one and fill in year):
   - [x] (a) January through March 1979
   - (b) April through June
   - (c) July through September
   - (d) October through December

4. Designated motor vehicle gasoline covered by this report (check one):
   - [x] (a) Unleaded
   - (b) Lead, premium
   - (c) Lead, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   - Shell Super Unleaded Gasoline: Specification Unleaded Gasoline - Premium Grade;
   - Unleaded Premium Grade Gasoline (Unbranded)

6. Production in this 3-month period of the gasoline covered by this report: 21,420,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Additive</th>
<th>(a) Commercial Name of Additive</th>
<th>(b) Range of Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td>Ethyl Automate Liquid Purple Dye</td>
<td></td>
<td></td>
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<tr>
<td>DuPont Oil Liquid Purple Dye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Code 08142 Additive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Tolad&quot; 286 Fuel Emulsion Preventative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Tolad&quot; 318 Fuel Emulsion Preventative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Tolad&quot; 326 Fuel Emulsion Preventative</td>
<td></td>
<td>7.20</td>
</tr>
<tr>
<td>Nalco 5RD-650 Fuel Emulsion Preventative</td>
<td></td>
<td>7.20</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733</td>
<td></td>
<td>2.42</td>
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<tr>
<td>Ethyl Antioxidant 733-HDA-67</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 60</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 80</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 90</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>[a] Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethyl Antioxidant FDA</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Pitt Consol M-56</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-22</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-23</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-31</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-33</td>
<td>0 0 0</td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7 (question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for ____________________________
Shell Oil Company
by its authorized agent ____________________________
H. H. Williams, Manager
Title ____________________________
Logistics - Quality Assurance
Date ____________________________
May 11, 1979

INSTRUCTIONS

Applicability
Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)1367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission
Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission
One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions
Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.

EPA(DUR)1367 (Rev. 11-77)
FUEL MANUFACTURER QUARTERLY REPORT
FOR MOTOR VEHICLE GASOLINE

1. Fuel Manufacturer: SHELL OIL COMPANY.

2. Address: P. O. BOX 2463
HOUSTON, TEXAS 77001

3. Period of this report [check one and fill in year]:
   (a) January through March 1979
   (b) April through June
   (c) July through September
   (d) October through December

4. Designated motor vehicle gasoline covered by this report [check one]:
   (a) Unleaded
   (b) Lead, premium
   (c) Lead, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   Shell Super Unleaded Gasoline: Specification Unleaded Gasoline - Premium Grade;
   Unleaded Premium Grade Gasoline (Unbranded)

6. Production in this 3-month period of the gasoline covered by this report: 21,420,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Additive</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td>UOP No. 5-S Antioxidant</td>
<td>0.68</td>
<td>0.31</td>
</tr>
<tr>
<td>Ethyl Metal Deactivator MDA-50</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ethyl Metal Deactivator MDA-80</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator (DMD)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator 50</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator 75</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Cardinal Metal Deactivator CDA-50</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nalco 5403</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>ROKON</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Methyl Tertiary Butyl Ether (MTBE)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Tertiary Butyl Alcohol (TBA)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Diisopropyl Ether (DIPE)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
### INSTRUCTIONS

**Applicability**

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

**Date of Submission**

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

**Method of Submission**

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

- Administrator, Environmental Protection Agency
- Attn: Office of Fuel and Fuel Additive Registration (MD-79)
- Research Triangle Park, North Carolina 27711

**Definitions and Specific Instructions**

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

**Question 7**

Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.

---

### FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a) Commercial</td>
</tr>
<tr>
<td>Leave Blank</td>
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<tr>
<td></td>
<td></td>
</tr>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7 (question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company

by its authorized agent

H. H. Williams, Manager

Title Logistics - Quality Assurance

Date

---

**INSTRUCTIONS**

**Applicability**

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

**Date of Submission**

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

**Method of Submission**

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

- Administrator, Environmental Protection Agency
- Attn: Office of Fuel and Fuel Additive Registration (MD-79)
- Research Triangle Park, North Carolina 27711

**Definitions and Specific Instructions**

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

**Question 7**

Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.

---

**INSTRUCTIONS**

**Applicability**

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

**Date of Submission**

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

**Method of Submission**

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

- Administrator, Environmental Protection Agency
- Attn: Office of Fuel and Fuel Additive Registration (MD-79)
- Research Triangle Park, North Carolina 27711

**Definitions and Specific Instructions**

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

**Question 7**

Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
FUEL MANUFACTURER QUARTERLY REPORT
FOR MOTOR VEHICLE GASOLINE

1. Fuel Manufacturer: SHELL OIL COMPANY

2. Address: P. O. BOX 2463
   HOUSTON, TEXAS 77001

3. Period of this report (check one and fill in year):
   X (a) January through March 1979
   ___ (b) April through June
   ___ (c) July through September
   ___ (d) October through December

4. Designated motor vehicle gasoline covered by this report (check one):
   X (a) Unleaded
   ___ (b) Leaded, premium
   ___ (c) Leaded, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   Shell Super Regular - Unleaded; Specification Unleaded Gasoline - Intermediate Grade
   Unleaded Intermediate Grade Gasoline (Unbranded)

6. Production in this 3-month period of the gasoline covered by this report: 683,424,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Leaf Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell Code 08142 Additive</td>
<td>145.00 0 115.08</td>
<td></td>
</tr>
<tr>
<td>&quot;Tolad&quot; 286 Fuel Emulsion Preventive</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>&quot;Tolad&quot; 318 Fuel Emulsion Preventive</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>&quot;Tolad&quot; 326 Fuel Emulsion Preventive</td>
<td>7.20 0 0.84</td>
<td></td>
</tr>
<tr>
<td>Nalco 5RD-650 Fuel Emulsion Preventive</td>
<td>7.20 0 2.55</td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>Ethyl Antioxidant 733</td>
<td>3.27 0 1.56</td>
<td></td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - MDA - 67</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 60</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 80</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>Ethyl Antioxidant 733 - Toluene 90</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>Ethyl Antioxidant PDA</td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>Pitt Consol M-56</td>
<td>3.07 0 0.12</td>
<td></td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
### FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, milliter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-22</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-23</td>
<td>3.45</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-31</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Antioxidant EO-33</td>
<td>0</td>
</tr>
<tr>
<td>UPO No. 5-5 Antioxidant</td>
<td>0.64</td>
</tr>
<tr>
<td>Ethyl Metal Deactivator MDA-50</td>
<td>0</td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? [ ]

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for [Shell Oil Company] by its authorized agent [H. H. Williams]
Title [Manager Logistics - Quality Assurance]
Date [May 11, 1979]

---

**INSTRUCTIONS**

### Applicability

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA[DUR1387]) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

### Date of Submission

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

### Method of Submission

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

### Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.

---

$001250
## FUEL MANUFACTURER QUARTERLY REPORT
FOR MOTOR VEHICLE GASOLINE

1. **Fuel Manufacturer:** SHELL OIL COMPANY

2. **Address:** P. O. BOX 2463, HOUSTON, TEXAS 77001

3. **Period of this report (check one and fill in year):**
   - (a) January through March 1979
   - (b) April through June
   - (c) July through September
   - (d) October through December

4. **Designated motor vehicle gasoline covered by this report (check one):**
   - (a) Unleaded
   - (b) Leaded, premium
   - (c) Leaded, non-premium

5. **Brand name(s) of motor vehicle gasoline covered by this report (list):**
   - Unleaded Intermediate Grade Gasoline (Unbranded)

   **Production in this 3-month period of the gasoline covered by this report:** 683,424,000 gal.

6. **Additives previously reported for use in the gasoline covered by this report:**

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>(b) Highest</th>
<th>(c) Lowest</th>
<th>(d) Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethyl Metal Deactivator MDA-80</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DuPont Metal Deactivator (DMD)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DuPont Metal Deactivator 50</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DuPont Metal Deactivator 75</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Cardinal Metal Deactivator CDA-50</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Nalco 5403</td>
<td>4.44</td>
<td>0</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>ROKON</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Methyl Tertiary Butyl Ether (MTBE)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Tertiary Butyl Alcohol (TBA)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Diisopropyl Ether (DIPE)</td>
<td>0.11%V</td>
<td>0</td>
<td>0.02%V</td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? __ 6, 7 __

(question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company

by its authorized agent

H. H. Williams, Manager

Title Logistics - Quality Assurance

Date May 11, 1979

INSTRUCTIONS

Applicability

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency

Attn: Office of Fuel and Fuel Additive Registration (MD-79)

Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was O in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
FUEL MANUFACTURER QUARTERLY REPORT
FOR MOTOR VEHICLE GASOLINE

1. Fuel Manufacturer: SHELL OIL COMPANY

2. Address: P. O. BOX 2463
HOUSTON, TEXAS 77001

3. Period of this report (check one and fill in year):
   - (a) January through March 1979
   - (b) April through June
   - (c) July through September
   - (d) October through December

4. Designated motor vehicle gasoline covered by this report (check one):
   - (a) Unleaded
   - (b) Leaded, premium
   - (c) Leaded, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   Shell Regular; Regular Grade Gasoline (Unbranded); Specification Gasoline -
   Regular Grade

6. Production in this 3-month period of the gasoline covered by this report: 921,018,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DuPont Oil Bronze Y Liquid Dye</td>
<td>(b) Highest 4.70 (c) Lowest 0 (d) Average 2.78</td>
</tr>
<tr>
<td></td>
<td>DuPont Oil Bronze Dye</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Oil Bronze S-2 Liquid Dye</td>
<td>4.00 (b) Highest 0 (c) Lowest 0 (d) Average 1.09</td>
</tr>
<tr>
<td></td>
<td>Ethyl Automate Liquid Dye-Bronze</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Tel Motor Antiknock Red-01</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>DuPont &quot;Tetramix&quot; 25 Antiknock Red-01</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>DuPont &quot;Tetramix&quot; 50 Antiknock Red-01</td>
<td>770.23 (b) Highest 0 (c) Lowest 173.54 (d) Average</td>
</tr>
<tr>
<td></td>
<td>DuPont &quot;Tetramix&quot; 75 Antiknock Red-01</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>DuPont &quot;Tetramix&quot; 50 Antiknock Orange-62</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antiknock Compound-MLA 500 Motor Mix (White No. 1)</td>
<td>562.67 (b) Highest 0 (c) Lowest 13.44 (d) Average</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antiknock Compound-TKL Motor Mix (White No. 1)</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl MLA 750 Motor Mix</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
<tr>
<td></td>
<td>Nalkyl ME-50-1 Motor Mix</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average 0</td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
### FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Additive Name</th>
<th>Range of Additive Concentration, mili/ltre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nalkyl ME-75-1 Motor Mix</td>
<td>0 0 0</td>
</tr>
<tr>
<td>HGC Antiknock Compound-MAF-5OR-TR</td>
<td>1292.48 8 530.68</td>
</tr>
<tr>
<td>HGC Antiknock Compound-TEF Motor Mix-TR</td>
<td>1301.35 0 65.10</td>
</tr>
<tr>
<td>HGC Antiknock Compound-MAF Motor Mix-5OR-TRA</td>
<td>0 0 0</td>
</tr>
<tr>
<td>PPG MAF 25 R Antiknock</td>
<td>929.78 0 215.26</td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601. 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 2545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7 (question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company by its authorized agent H. H. Williams, Manager Title Logistics - Quality Assurance Date May 11, 1979

### INSTRUCTIONS

**Applicability**
Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)168) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

**Date of Submission**
Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

**Method of Submission**
One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

**Definitions and Specific Instructions**
Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

**Question 7.** Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.

EPA(DUR)168 (Rev. 11-77)
### FUEL MANUFACTURER QUARTERLY REPORT
FOR MOTOR VEHICLE GASOLINE

1. Fuel Manufacturer: SHELL OIL COMPANY
2. Address: P. O. BOX 2463
   HOUSTON, TEXAS 77001

3. Period of this report (check one and fill in year):
   - X (a) January through March 1979
   - (b) April through June
   - (c) July through September
   - (d) October through December

4. Designated motor vehicle gasoline covered by this report (check one):
   - (a) Unleaded
   - (b) Leaded, premium
   - X (c) Leaded, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   Shell Regular; Regular Grade Gasoline (Unbranded); Specification Gasoline - Regular Grade

6. Production in this 3-month period of the gasoline covered by this report: 921,018,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethyl MMT</td>
<td>15.04 0 3.54</td>
</tr>
<tr>
<td></td>
<td>Shell Code 08142 Additive</td>
<td>145.00 0 56.74</td>
</tr>
<tr>
<td></td>
<td>&quot;Tolad&quot; 286 Fuel Emulsion Preventive</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>&quot;Tolad&quot; 318 Fuel Emulsion Preventive</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>&quot;Tolad&quot; 326 Fuel Emulsion Preventive</td>
<td>7.20 0 0.41</td>
</tr>
<tr>
<td></td>
<td>Nalco 5RD-650 Fuel Emulsion Preventive</td>
<td>7.20 0 1.26</td>
</tr>
<tr>
<td></td>
<td>Hexylene Glycol</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733</td>
<td>8.56 0 1.46</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 - MDA - 67</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 - Toluene 60</td>
<td>2.85 0 0.14</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 - Toluene 80</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 - Toluene 90</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant PDA</td>
<td>0 0 0</td>
</tr>
</tbody>
</table>

(List Additional Additives on Reverse)
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pitt Consol M-56</td>
<td>Range of Additive Concentration, mg/liter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Highest.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.19</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-22</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-23</td>
<td>3.85</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-31</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DuPont Antioxidant AO-33</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>UOP No. 5-S Antioxidant</td>
<td>1.53</td>
</tr>
</tbody>
</table>

B. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7 (question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company

by its authorized agent H. H. Williams, Manager

Title Logistics - Quality Assurance

Date May 11, 1979

INSTRUCTIONS

Applicability

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.

$ 001256
FUEL MANUFACTURER QUARTERLY REPORT  
FOR-MOTOR VEHICLE GASOLINE

1. Fuel Manufacturer: SHELL OIL COMPANY

2. Address: P. O. BOX 2463  
HOUSTON, TEXAS  77001

3. Period of this report (check one and fill in year):
   X (a) January through March 1979  
   (b) April through June  
   (c) July through September  
   (d) October through December

4. Designated motor vehicle gasoline covered by this report (check one):
   X (c) Leaded, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
   Shell Regular; Regular Grade Gasoline (Unbranded); Specification Gasoline -
   Regular Grade

6. Production in this 3-month period of the gasoline covered by this report: gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethyl Metal Deactivator MDA-50</td>
<td>0 (b) Highest 0 (c) Lowest 0 (d) Average</td>
</tr>
<tr>
<td></td>
<td>Ethyl Metal Deactivator MDA-80</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Metal Deactivator (DMD)</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Metal Deactivator 50</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>DuPont Metal Deactivator 75</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Cardinal Metal Deactivator CDA-50</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Nalco 5403</td>
<td>4.44 0 0.35</td>
</tr>
<tr>
<td></td>
<td>ROKON</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Methyl Tertiary Butyl Ether (MTBE)</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Tertiary Butyl Alcohol (TBA)</td>
<td>0 0 0</td>
</tr>
<tr>
<td></td>
<td>Diisopropyl Ether (DIPE)</td>
<td>0.20%V 0 0.05%V</td>
</tr>
</tbody>
</table>

[List Additional Additives on Reverse]

EPAIDUR1368 (Rev. 11-77)
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>Commercial Name of Additive</th>
<th>Range of Additive Concentration, milliter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(b) Highest</td>
</tr>
<tr>
<td></td>
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This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company

by its authorized agent

H. H. Williams, Manager

Title

Logistics - Quality Assurance

Date May 11, 1979

INSTRUCTIONS

Applicability

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Date of Submission

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Method of Submission

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Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
### Fuel Manufacturer Quarterly Report

**For Motor Vehicle Gasoline**

1. **Fuel Manufacturer:** SHELL OIL COMPANY
2. **Address:** P. O. Box 2463
   HOUSTON, TEXAS  77001

3. **Period of this report (check one and fill in year):**
   - (a) January through March 1979
   - (b) April through June 1979
   - (c) July through September 1979
   - (d) October through December 1979

4. **Designated motor vehicle gasoline covered by this report (check one):**
   - (a) Unleaded
   - (b) Leaded, premium
   - (c) Leaded, non-premium

5. **Brand name(s) of motor vehicle gasoline covered by this report (list):**
   - Shell Unleaded Gasoline: Specification Unleaded Gasoline – Regular Grade; Unleaded
   - Regular Grade Gasoline (unbranded)

6. **Production in this 3-month period of the gasoline covered by this report:** 118,062,000 gal.

7. **Additives previously reported for use in the gasoline covered by this report:**

<table>
<thead>
<tr>
<th>Leave Blank</th>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shell Code 08142 Additive</td>
<td>145.00, 0, 56.76</td>
</tr>
<tr>
<td></td>
<td>&quot;Tolad&quot; 286 Fuel Emulsion Preventative</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>&quot;Tolad&quot; 318 Fuel Emulsion Preventative</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>&quot;Tolad&quot; 326 Fuel Emulsion Preventative</td>
<td>7.20, 0, 0.41</td>
</tr>
<tr>
<td></td>
<td>Nalco 5RD-650 Fuel Emulsion Preventative</td>
<td>7.20, 0, 1.31</td>
</tr>
<tr>
<td></td>
<td>Hexylene Glycol</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733</td>
<td>3.28, 0, 1.83</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733-MDA-67</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 – Toluene 60</td>
<td>2.85, 0, 0.50</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 – Toluene 80</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant 733 – Toluene 90</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>Ethyl Antioxidant PDA</td>
<td>0, 0, 0</td>
</tr>
<tr>
<td></td>
<td>Pitt Consol M-56</td>
<td>0, 0, 0</td>
</tr>
</tbody>
</table>

   (List Additional Additives on Reverse)

- EPA Form DUR158 (Rev. 11-77)
- FQRM Approved: Office of Management and Budget No. 158-R0135.
<table>
<thead>
<tr>
<th>Name of Additive</th>
<th>Range of Additive Concentration, m/g/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPont Antioxidant AO-22</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-23</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-31</td>
<td>0</td>
</tr>
<tr>
<td>DuPont Antioxidant AO-33</td>
<td>0</td>
</tr>
<tr>
<td>UOP No. 5-S Antioxidant</td>
<td>0.38</td>
</tr>
</tbody>
</table>

8. This report is required by law (42 U.S.C. 7545 and 7601, 40 CFR 79). Failure to register fuels and fuel additives or to furnish the required information can result in a fine of $10,000 for each and every day of the continuance of such violation (42 U.S.C. 7545 and 7601). The business may, if it desires, assert a business confidentiality claim covering part or all of the information submitted. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2.

Which answers to Questions 1 through 7 do you consider trade secret, if any? 6, 7 (question numbers)

This fuel manufacturer assures that all information submitted herewith is complete and, to the best of his knowledge, correct.

Signed for Shell Oil Company
by its authorized agent

B. B. Williams, Manager
Title Logistics - Quality Assurance
Date May 11, 1979

INSTRUCTIONS

Applicability

Any manufacturer of a fuel designated by the Administrator of the Environmental Protection Agency who has had a fuel registered through submission of a Fuel Manufacturer Notification (Form No. EPA(DUR)367) must submit Fuel Manufacturer Quarterly Reports for that fuel in order to keep such registration in force.

Date of Submission

Fuel Manufacturer Quarterly Reports are to be submitted within 45 days after the close of each reporting period (i.e., calendar quarter).

Method of Submission

One copy of a Quarterly Report should be completed and submitted for each designated fuel. Completed form(s) should be sent to:

Administrator, Environmental Protection Agency
Attn: Office of Fuel and Fuel Additive Registration (MD-79)
Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions

Definitions and Specific Instructions are the same as those provided for the Fuel Manufacturer Notification.

Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
1. Fuel Manufacturer: SHELL OIL COMPANY

2. Address: P. O. BOX 2463

HOUSTON, TEXAS 77001

3. Period of this report (check one and fill in year):
   
   X (a) January through March 1979 year
   (b) April through June year
   (c) July through September year
   (d) October through December year

4. Designated motor vehicle gasoline covered by this report (check one):
   
   X (a) Unleaded
   (b) Leaded, premium
   (c) Leaded, non-premium

5. Brand name(s) of motor vehicle gasoline covered by this report (list):
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6. Production in this 3-month period of the gasoline covered by this report: 118,062,000 gal.

7. Additives previously reported for use in the gasoline covered by this report:

<table>
<thead>
<tr>
<th>(a) Commercial Name of Additive</th>
<th>Range of Additive Concentration, mg/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Metal Deactivator MDA-50</td>
<td>(b) Highest 0 0 0 (c) Lowest 0 0 0 (d) Average 0 0 0</td>
</tr>
<tr>
<td>Ethyl Metal Deactivator MDA-80</td>
<td>0 0 0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator (DMD)</td>
<td>0 0 0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator 50</td>
<td>0 0 0</td>
</tr>
<tr>
<td>DuPont Metal Deactivator 75</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Cardinal Metal Deactivator CDA-50</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Nalco 5403</td>
<td>0 0 0</td>
</tr>
<tr>
<td>ROKE</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Methyl Tertiary Butyl Ether (MTBE)</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Tertiary Butyl Alcohol (TBA)</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Diisopropyl Ether (DIPE)</td>
<td>.28%V 0 .02%V</td>
</tr>
</tbody>
</table>

EPA(DUR)368 (Rev. 11-77) (List Additional Additives on Reverse)
FUEL MANUFACTURER QUARTERLY REPORT FOR MOTOR VEHICLE GASOLINE (continued)

<table>
<thead>
<tr>
<th>Name of Additive</th>
<th>Range of Additive Concentration</th>
<th>(a) Commercial</th>
<th>(b) Highest</th>
<th>(c) Lowest</th>
<th>(d) Average</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Leave Blank</td>
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Signed for Shell Oil Company
by its authorized agent H. H. Williams, Manager
Title Logistics - Quality Assurance
Date May 11, 1979

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Research Triangle Park, North Carolina 27711

Definitions and Specific Instructions
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Question 7. Note that all additives previously reported for a designated fuel must be listed, even if usage was 0 in the particular quarter. If you desire to have an additive dropped from your listing, you should notify this office in writing.
Chronology of Gasoline Additives

1960 - 1965
- n-Propylbenzene

1965 - 1970
- Gasoline hydrocarbons with 10+ carbon atoms
- Toluene/benzene ratio > 2.5 - 4
- Methyl tert-butyl ether (MTBE), eastern United States

1970 - 1975
- Manganesse (MMT)
- Mixed Alkyl Leads
- Tetraethyl lead only

1975 - 1980
- Ethylene dibromide and ethylene dichloride

1980 - 1985
- Lead
- >1.1 g/gal
- <1.1 g/gal
- <0.1 g/gal

1985 - 1990
- MTBE, western United States

1990 - 1995
- Lead

1995 - 2000
- NIKKI ROY, CSR #3052

DEPO EXHIBIT 556
FOR IDENTIFICATION
WITNESS
DATE 3-22-01
NIKKI ROY, CSR #3052
VAPOIR FLUX RESULTS FOR WSB-27

5 feet BLS

10 feet BLS

20 feet BLS

40 feet BLS

Typing Information: Gasoline range

60 feet BLS

Typing Information: Gasoline range with some heavier compounds

Same Concentration Scales

5 feet BLS

10 feet BLS

20 feet BLS

40 feet BLS

60 feet BLS

Typing Information: Gasoline range

Typing Information: Gasoline range with some heavier compounds
WICS Plot Map Showing DHF Boring Locations.

ATTACHMENT 6
PLUMES B1 AND B2 - GASOLINE:
MAP OF BENZENE GROUNDWATER CONCENTRATIONS