

# Oil Spill Occurrence Rates from Alaska North Slope Oil and Gas Exploration, Development, and Production



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## **DISCLAIMER**

Study concept, oversight, and funding were provided by the US Department of the Interior, Bureau of Ocean Energy Management (BOEM), Environmental Studies Program, Washington, DC, under Contract Number 140M0119F0003. This report has been technically reviewed by BOEM, and it has been approved for publication. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the US Government, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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## **ABOUT THE COVER**

Stored drilling rigs on the Alaska North Slope, photo by Tim Robertson.

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## EXECUTIVE SUMMARY

Under contract to the Bureau of Ocean Energy Management (BOEM), Nuka Research and Planning Group, LLC developed statistical methods to estimate oil spill occurrence based on past spills in the Alaska North Slope region. This information was sought for use in future assessment of potential oil and gas production in the Outer Continental Shelf managed by BOEM, though the current oil and gas production infrastructure is all based onshore or in state waters.

A dataset of 1,761 spills was compiled from a range of sources of available records covering calendar years 1971 through 2019. Spills were included in the dataset if they were larger than 1 barrel and could be associated with Alaska North Slope oil and gas exploration, development, or production infrastructure or activities. While this included oil field support, it did not include the Trans-Alaska Pipeline System from Pump Station #1 downstream.

The full dataset was characterized across oil fields and infrastructure types, as well as presenting the number and volume of spills over time:

- The oil fields with highest numbers of spills are the legacy fields that have been operating the longest: Prudhoe Bay (980), Kuparuk River (345) and Milne Point (86) account for 80% of the number and 86% of the volume of oil spills recorded.
- The largest number of spills were refined oil (1,042), but these spills only accounted for 38% of the total volume. The crude oil category accounted for 719 spills but 62% of total volume (21,123 barrels [bbl]). Much of the difference between crude oil and refined oil volume can be traced to the two Class A (>1,000 bbl) oil spills (1,071 in 1971 and 5,054 bbl in 2006).
- The largest number (868) and largest volume (17,964 bbl) of recorded spills were attributed to mechanical failure. Spills caused by human error (588) represented about 33% of the number of spills and about 31% of the volume (10,496).
- The largest number (1,429) and 78% of the volume (26,645 bbl) of recorded spills were attributed to oil production facilities. The support facilities/services category accounted for the next highest number (121) and 9% of volume (3,164 bbl).
- Most spills (1,465) were between 1-10 bbl, totaling a volume of 4,739 bbl. Only 2 spills exceeded 1,000 bbl each, but these totaled 6,125 by comparison. There were 294 spills between 10-1,000 bbl, totaling a volume of 23,289 bbl.

While the full dataset was characterized, only spills from 1996-2019 were used to evaluate trends and develop the occurrence rate estimators. Familiarity with historic oil spill reporting and prevention practices indicated both that industry practices have changed with time (and regulation) and the current and best available data tracking system for the area was initiated in mid-1995.

When comparing spills from 1996-2019 to oil production volumes, the *number* of spills correlates well with production. Both generally decline through 2019. However, annual spill volume does not correlate with production well at all. Additionally, when broken down by oil type, it is actually the number of crude oil spills that correlates best with production. We observed that the number of crude oil spills declined rapidly about 2010 and remained low (below 10) through the remainder of the study period, while the number of refined oil spills stayed mostly above 10 spills per year.

Several approaches were tested to develop occurrence estimators. The dependent variables were the total volume of oil spilled each year and the total number of spills each year. The following independent

variables were considered: annual volume of gas produced from gas wells, annual volume of crude oil produced from oil wells, annual volume of water produced from oil wells, and average inflation-adjusted price of Alaskan crude each year. Overall, the linear correlations were significantly stronger between the potential independent variables and the number of spills observed than between the volume of oil spilled. This reinforced the decision to focus the regression work on explaining the number of spills, not the volume spilled.

A suitable regression model was identified for the annual number of spills using oil production and adjusted price as independent variables.

The resulting linear regression model was:

$$N_{tot} = -11.66664 + Oil\_Prod. \times 0.12482 + Adj\_Price \times 0.18513$$

Where:  $N_{tot}$  = total annual number of spills for all spill types and classes

Oil\_Prod. = annual volume of crude oil produced<sup>1</sup> from oil wells in million bbl

Adj\_Price = Alaska North Slope crude oil price in US adjusted by Consumer Price Index to 2019.

The model indicated that for every increase of one million barrels (MMbbl) of oil production, the number of annual spills is expected to increase 0.12 units for all spill types and classes. This model explains 53% of the variation observed in the annual number of spills. The model's calculated multivariate power was 0.9983. The power is exceptionally good.

By contrast, it was not possible to develop a regression model to estimate the annual *volume* of oil spills. Instead, a bootstrapping procedure and Monte Carlo simulation was used to estimate the spill volume. The resulting formula to estimate the total annual spilled volume was:

$$Vol_{tot,y} = Pred\_N_{tot,y} \times Prop\_A \times Med\_A + Pred\_N_{tot,y} \times Prop\_B \times Med\_B + Pred\_N_{tot,y} \times Prop\_C \times Med\_C + Pred\_N_{tot,y} \times Prop\_D \times Med\_D$$

Where:  $Pred\_N_{tot,y}$  = total number of spills predicted for oil production Y using the regression model with multiple realizations created via a Monte Carol simulation.

Prop\_X = Proportion of spills from Class X estimated using the bootstrapped procedure

Med\_X = Median spill size of Class X estimated using the bootstrapped procedure

Occurrence estimates were also sought for crude and refined spills separately. The occurrence model to predict annual number of crude oil spills is very similar to the model developed to predict annual number of all types of oil. Applying the above modeling approach to the Alaska North Slope annual crude oil spill data resulted in a regression model with Oil Production as the single independent variable.

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<sup>1</sup> Crude oil production values do not include natural gas liquids.

The resulting linear regression model was:

$$N\_crude\_tot = -5.251565 + Oil\ Prod. \times 0.065857$$

Where:  $N\_crude\_tot$  = total annual number of crude oil spills

$Oil\_Prod.$  = annual volume of crude oil produced from oil wells in million bbl

The model indicates that for every increase of 1 MMbbl of oil production the number of annual crude oil spills is expected to increase 0.066 units. The model explains 67% of the variation observed in the annual number of spills.

The model used for crude spills was not useful for predicting annual numbers of refined spills, however. There was no significant relationship between annual number of refined oil spills and any of the independent variables investigated. The best estimator of the annual number of refined oil spills is the mean value, which is equal to 20.9 refined spills per year.

The limitations of the models developed should be noted. These include the small size of the dataset (24 years) and changes in reporting over time. Occurrence estimates might also be improved by using more independent variables, though in order to be useful these need to be variables that can be estimated or planned on for the future.

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## List of Abbreviations and Acronyms

ADEC	Alaska Department of Environmental Conservation
AIC statistic	Akaike Information Criteria
bbbl	barrel
BOEM	Bureau of Ocean Energy Management
DOI	US Department of the Interior
mcf	million cubic feet
MMbbl	Million barrels
NGL	Natural Gas Liquids
NRC	National Response Center
OCS	Outer Continental Shelf
RMSE	root mean square error
VIF statistic	Variable Inflation Factor

# 1 INTRODUCTION

Nuka Research and Planning Group, LLC completed this study under Contract #140M0119F0003 to the Bureau of Ocean Energy Management (BOEM) Alaska Regional Office.

## 1.1 Purpose

The purpose of project was to develop oil spill occurrence estimators for the Alaska North Slope based on available data on past onshore and offshore spills in the region.

The objectives of this analysis were to:

- Develop a dataset of crude and refined oil spill records for Alaska North Slope;
- Develop a dataset of crude oil and gas production, and other possible independent variables for developing an oil spill occurrence rate model for Alaska's North Slope;
- Provide statistical measures of crude and refined oil spills such as mean and median spill sizes with confidence intervals as appropriate;
- Use statistical analysis to identify trends in spill rates and volumes;
- Categorize Alaska North Slope spills into size classes;
- Apply statistical procedures to develop occurrence rate estimator models for crude and refined oil spills, as well as all spills; and
- Develop an appropriate confidence interval for occurrence rate estimators.

This report updates a similar study completed in 2013 (Robertson et al., 2013). Other previous work on OCS historical platform and pipeline crude oil spill occurrence rates relies on data from the Gulf of Mexico and Pacific OCS (ABS Consulting Inc. 2016; ABSG Consulting Inc. 2018; Anderson and LaBelle, 2000; Anderson, Mayes & LaBelle, 2012; Eschenbach et al., 2010).

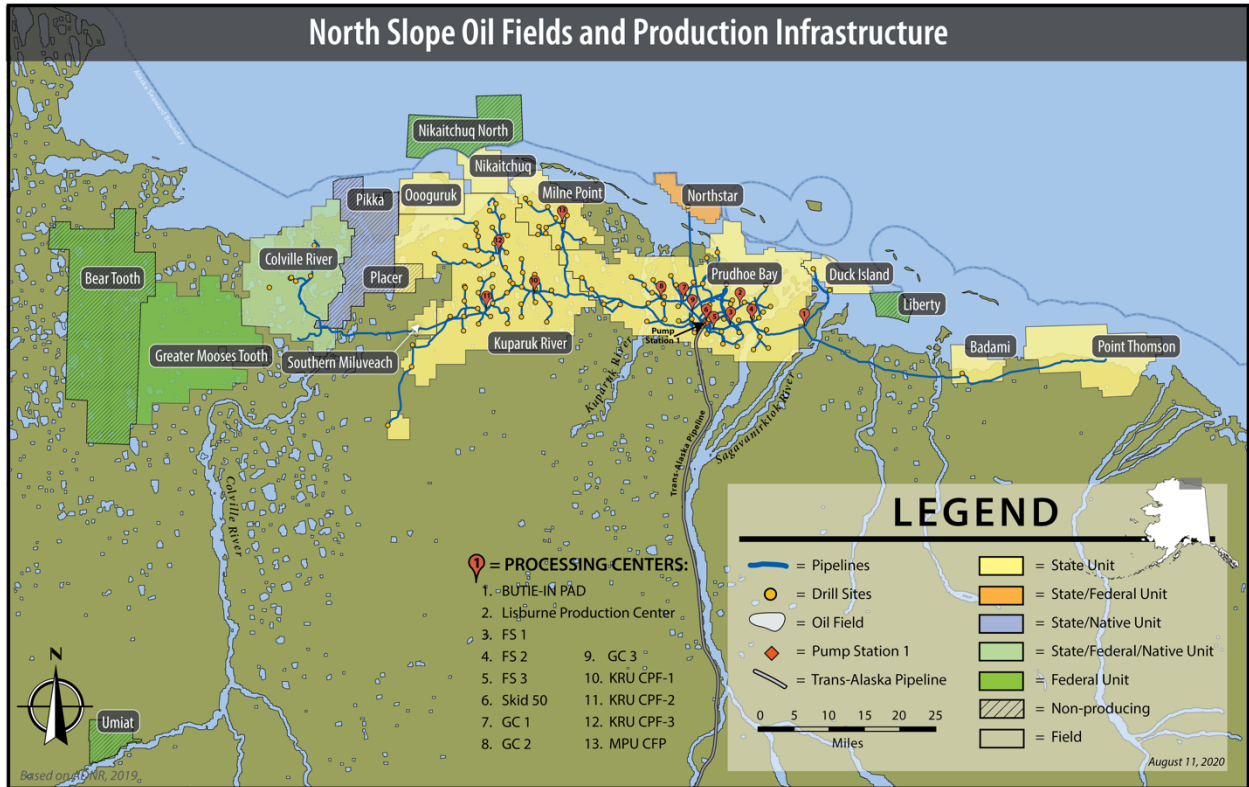
## 1.2 Project Scope

For the purpose of the study, the project scope was defined by whether the spill was associated with oil and gas exploration, development, or production activities and the geographic area (encompassing the boundaries of the North Slope Borough, including adjacent shorelines and marine waters out to the Exclusive Economic Zone).

### 1.2.1 Alaska North Slope Oil and Gas Operations

This analysis considers past spills associated with oil exploration, development, production, storage and transportation infrastructure on Alaska's North Slope, including construction and maintenance activities. Oil produced in the region is moved by pipeline to the Trans-Alaska Pipeline's Pump Station 1. Figure 1 shows the location of the North Slope oil fields and associated piping, drill sites, pipelines, pump stations, and processing centers. This study focused on spills associated with oil and gas exploration, development,

and production activities. The study does *not* include spills associated with the Trans-Alaska Pipeline from Pump Station 1 and south, nor spills of solely produced water<sup>2</sup> or other hazardous substances.



**Figure 1. Alaska North Slope oil fields and associated infrastructure**

<sup>2</sup> Spills of a mixture of produced water and crude oil were included, but only the volume of crude oil was analyzed.

## 2 METHODS AND ASSUMPTIONS

This section describes the methods, inputs, and assumptions applied to the analysis.

### 2.1 Oil Spill Data Collection and Collation

Nuka Research collated data from various sources including:

- Alaska Department of Environmental Conservation oil spill database<sup>3</sup>
- Reports of oil spills to federal agencies through the National Response Center (NRC)<sup>4</sup>
- Pipeline and Hazardous Materials Safety Administration database report from September 11, 2018, provided by BOEM.
- Robertson, et al 2013 (previous Alaska North Slope oil spill occurrence rates study)

Each spill record was reviewed. Spills of larger than 1 bbl were included in the data if they were deemed to originate from infrastructure or activities within the project scope. Spills were then categorized based on the information available and the best professional judgement of the Principle Investigator. Ten percent of records were randomly selected and verified back to the original source.

The original oil spill datasets each had different data structures. The collation process involved transforming each dataset into a common format that would facilitate the merging of records from a single spill. In all cases, spill volumes were converted to barrels. In some datasets, multiple variables from a single record were concatenated into a single variable. Table 1 presents the data scheme for the final dataset with notes about how these variables relate to the original datasets. The final dataset (Appendix A) consists of 1,761 records with each representing a single spill event covering calendar years 1971 through 2019.

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<sup>3</sup> <https://dec.alaska.gov/Applications/SPAR/PublicMVC/PERP/SpillSearch>

<sup>4</sup> <https://nrc.uscg.mil/>

**Table 1. Variables for each spill record**

Variable	Information
Spill ID	Unique identifier for this dataset.
Primary Source	The primary source record for the spill.
Source ID	The identifier from the primary source.
Additional Sources	Other sources where a record of the spill was found.
Spill Date	The date that the spill occurred, if it was known.
Spill Year	The calendar year that the spill occurred.
Spill Size (bbl)	The best or maximum estimate of the spill size in barrels <sup>5</sup> (42 US gallons).
Spill Size Class	Spill size category. See Section 2.1.1.
Substance	The category of the oil substance spilled. See Section 2.1.2
Consolidated Substance	A consolidation of oil substances. See Section 2.1.2.
Facility/Activity Type	The category of facility type. See Section 2.1.3.
Consolidated Facility/Activity Type	A consolidation of facility types. See Section 2.1.3.
Location	The category of the location of the spill, either Offshore, Onshore, or Unknown.
Oil Field / Infrastructure	The oil field or infrastructure where the spill occurred. See Section 3.2.1.
Spill Source	The category of the source of the spill. See Section 2.1.4.
Spill Cause	The category of the spill cause. See Section 2.1.5.
Consolidated Spill Cause	A consolidation of spill causes. See Section 2.1.5.

### 2.1.1 Spill Size Classes

Only spills larger than one barrel (bbl) were included. The following spill size classes, as defined in Robertson 2013, were used for this study:

- A = oil spills > 1,000 bbl
- B = oil spills > 200 bbl and ≤ 1,000 bbl
- C = oil spills > 10 bbl and ≤ 200 bbl
- D = oil spills > 1 bbl and ≤ 10 bbl
- E = oil spills ≤ 1 bbl (excluded from this analysis)

Spills less than or equal to one barrel were not considered because of the historical inconsistency in reporting of small spills.

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<sup>5</sup> Note that spill size values in this report are rounded to the nearest bbl, but data in the analysis were carried to two decimal places.

### **2.1.2 Spill Substance**

The following consolidated spill substances were used:

- Crude Oil
- Crude Oil and Produced Water
- Refined: Diesel
- Refined: Natural Gas Liquids
- Refined: Other

Consolidated spill substances were developed based on the categories used:

- Crude Oil
- Crude Oil and Produced Water
- Refined: Asphalt
- Refined: Aviation
- Refined: Ballast Water with Oil
- Refined: Bunker Oil
- Refined: Diesel
- Refined: Gasoline
- Refined: Hydraulic Oil
- Refined: Jet Fuel
- Refined: Lube/Gear Oil
- Refined: Naphtha
- Refined: Natural Gas Liquids
- Refined: Turbine Oil
- Refined: Unknown
- Refined: Unknown and Water

Where spills were of a mixed substance type, such as crude oil and produced water, only the oil portion of the mixture was included in the final dataset. For spills of produced water and oil where the proportion of oil and water was not identified, the proportion was estimated during the analysis using the best available information for the specific spill case.

### **2.1.3 Activity/Facility**

The following consolidated activity/facility types were used:

- Oil Production
- Oil Exploration
- Support Facility/Services
- Unknown

Consolidated activity/facility types were developed based on the categories used:

- Air Transportation (Support Facility/Services)
- Bulk Fuel Terminal (Support Facility/Services)
- Oil Exploration (Oil Exploration)
- Oil Production (Oil Production)
- Support Facility/Services (Support Facility/Services)
- Transmission Pipeline (Oil Production)
- Unknown (Unknown)
- Vehicle (Support Facility/Services)
- Waste Disposal (Support Facility/Services)



### 2.1.4 Spill Source

The following spill source categories were used:

- Coiled Tubing Unit
- Container, Other
- Drilling Activities
- Drum(s)
- Equipment Failure, Vehicle
- Flare
- Fuel Pump
- Heavy Equipment
- Hydraulic System
- J TUBE
- Loading Arm
- Other
- Pipe or Line
- Tank, Aboveground
- Tank, Mobile
- Tank, Other
- Unknown
- Vehicle
- Vessel
- Vessel Transfer
- Well

### 2.1.5 Spill Cause

The following consolidated spill causes were used:

- Human Error: Other
- Human Error: Overfill
- Human Error: Unknown
- Mechanical Failure: Corrosion
- Mechanical Failure: Other
- Mechanical Failure: Overpressure
- Mechanical Failure: Unknown
- Mechanical Failure: Valve/Seal
- Other
- Unknown

Consolidated spill causes were developed based on the categories used:

- Cargo Not Secured
- Collision/Allision/Grounding
- Containment Overflow
- Corrosion
- Crack
- Dumping
- Equipment Failure, Gauge/Sight Glass Failure
- Equipment Failure, Line Failure
- Equipment Failure, Other
- Equipment Failure, Seal Failure
- Equipment Failure, Tank Failure
- Equipment Failure, Unknown
- Equipment Failure, Valve Failure
- Equipment Failure, Vehicle
- Erosion
- External Factors
- Fire/Explosion
- Freezing
- Hull Failure
- Human Error
- Human Error, Overfill
- Miss-Injection
- Other
- Overpressure
- Puncture
- Rollover/Capsize
- Unknown
- Weld Failure

### **2.1.6 Spill Records and Years Included in Final Dataset**

The final oil spill dataset from 1971–2019 included 1,761 spills larger than one barrel. As discussed in Section 4 however, a shorter time period was used for the development of the occurrence estimator.

## **2.2 Exposure Variable Data**

Exposure or independent variable data considered for this analysis included oil production and adjusted oil prices.

Data on crude oil production by month from 1949-2019 was compiled from the Alaska Oil and Gas Conservation Commission’s records and combined into a workbook with a separate spreadsheet for each of the 10 distinct producing oil fields on the Alaska North Slope. Data for each month includes barrels of oil produced, barrels of water produced, million cubic feet of gas produced, and number of producing wells. Note that crude oil values do not include natural gas liquids.

Adjusted Oil Price data for Alaska North Slope crude oil were taken from US Energy Information Administration (EIA, 2020) and adjusted by the Consumer Price Index to 2019 US dollars.

These data, which are included in Appendix B, were used as independent variables for developing occurrence estimators.

We would like to have also used pipeline mileage as an independent variable, as it provided useful for estimating oil spill numbers in a prior study (Robertson, et. al., 2013), but current pipeline mileage by year data are not available for North Slope from operators or regulators. Nuka Research did an inventory of flow lines and oil transmission pipelines in 2010 for another project and it has not been updated since. An accurate inventory of pipeline miles with year placed in service might improve the oil spill occurrence rate estimator as was seen in the 2013 report (Robertson, et. al., 2013).

## **3 SUMMARY OF HISTORICAL SPILL OCCURRENCE DATA**

This section summarizes the spill data from 1971-2019 by the number of spills, spill volume, oil field, and cause, examining each of these factors as related to the spill size categories.

### **3.1 Total Spills Over Time**

There were 1,761 spills greater than one barrel recorded with a total volume of 34,153 barrels of oil spilled in the final dataset for Alaska North Slope. The earliest spill in the dataset occurred on June 3, 1971 and the last spill occurred on November 10, 2019.

### **3.2 Overview of Recorded Spills**

Figure 2 shows the number and volume of recorded spills for each cause, activity, substance, and oil field/infrastructure. Each of these factors will be discussed independently in sections below.

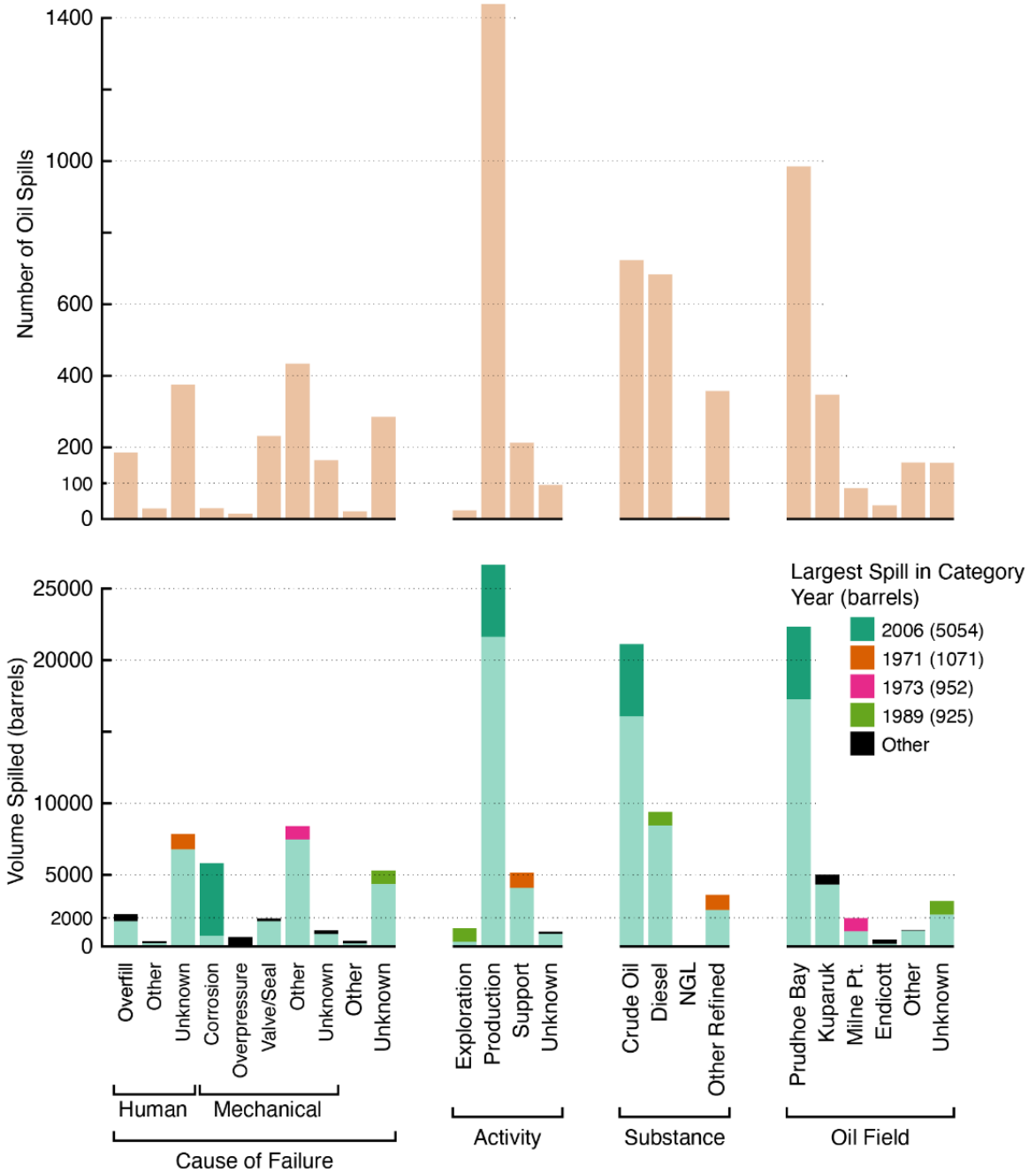


Figure 2. Overview of Alaska North Slope spills by cause, activity, substance, and oil field, 1971-2019

### 3.2.1 Spill Occurrence by Oil Field or Infrastructure Component

Oil was first produced on the Alaska North Slope in 1969 as shown in Table 2. This section presents spill occurrence by oil field or infrastructure component, as shown in Table 3. The oil fields with highest numbers of spills are the legacy fields that have been operating the longest: Prudhoe Bay (980), Kuparuk River (345) and Milne Point (86) account for 80% of the number and 86% of the volume of oil spills recorded.

**Table 2. Year of first production from Alaska North Slope productions units**

Production Unit	Year of First Production
Prudhoe Bay	1969
Kuparuk River	1970
Milne Point	1985
Endicott	1986
Badami	1998
Colville River, Alpine	2000
North Star	2001
Ooguruk	2003
Nikaitchuq	2011
Point Thompson	2016

**Table 3. Alaska North Slope spills by oil field and infrastructure, 1971–2019**

Oil Field - Infrastructure	Number	Percent Number	Total Volume (bbl)	Percent Total Volume
Prudhoe Bay	980	56%	22,330	65%
Kuparuk River	345	20%	5,019	15%
Unknown	157	9%	3,179	9%
Milne Point	86	5%	1,988	6%
Endicott	37	2%	482	1%
Support Services	45	3%	360	1%
Colville River, Alpine	29	2%	221	1%
Badami	15	1%	179	1%
Ooguruk	11	1%	125	<1%
Exploration	17	1%	101	<1%
North Star	15	1%	94	<1%
Nikaitchuq	14	1%	39	<1%
Point Thompson	10	1%	36	<1%
<b>Grand Total</b>	<b>1761</b>	<b>100%</b>	<b>34,153</b>	<b>100%</b>

Table 4 shows the percentage of the total volume accounted for by the largest oil spill in each oil field/infrastructure category. Excluding unknowns, the largest oil spill accounted for more than 50% of the total volume spilled in three of the 12 categories. The reader should keep in mind that spills of less than or equal to one barrel are not included and that larger spills are probably more likely to be reported than smaller spills. Also, these spills do not include spills on the Alaska North Slope from the construction of the Trans-Alaska Pipeline System.

**Table 4. Largest recorded spill at each oil field and percent of total volume of spills from that field represented by the largest spill, 1971-2019**

<b>Oil Field - Infrastructure</b>	<b>Maximum Spill (bbl)</b>	<b>% Total Volume</b>
Ooguruk	100	80%
Badami	109	61%
Endicott	287	59%
North Star	46	49%
Milne Point	925	47%
Support Services	124	34%
Colville River, Alpine	71	32%
Unknown	952	30%
Nikaitchuq	9	24%
Exploration	24	23%
Prudhoe Bay	5054	23%
Point Thompson	7	19%
Kuparuk River	675	13%

### 3.2.2 Overall Spill Occurrence by Cause

Table 5 shows the number and volume of oil spills by cause. The largest number (868) and largest volume (17,964 bbl) of recorded spills were attributed to mechanical failure. Spills caused by human error (588) represented about 33% of the number of spills and about 31% of the volume (10,496). The cause was unknown for 284 spills, representing 5,306 bbl.

**Table 5. Alaska North Slope spill occurrence and percent of total spill volume by cause, 1971-2019**

<b>Consolidated Cause</b>	<b>Number</b>	<b>Percent Number</b>	<b>Total Volume (bbl)</b>	<b>Percent Total Volume</b>
<b>Mechanical Failure</b>	<b>868</b>	<b>49%</b>	<b>17,964</b>	<b>53%</b>
Mechanical Failure: Corrosion	29	2%	5,811	17%
Mechanical Failure: Other	433	25%	8,410	25%
Mechanical Failure: Overpressure	15	1%	663	2%
Mechanical Failure: Unknown	161	9%	1,119	3%
Mechanical Failure: Valve/Seal	230	13%	1,961	6%
<b>Human Error</b>	<b>588</b>	<b>33%</b>	<b>10,496</b>	<b>31%</b>
Human Error: Other	29	2%	378	1%
Human Error: Overfill	186	11%	2,264	7%
Human Error: Unknown	373	21%	7,854	23%
<b>Unknown</b>	<b>284</b>	<b>16%</b>	<b>5,305</b>	<b>16%</b>
<b>Other</b>	<b>21</b>	<b>1%</b>	<b>389</b>	<b>1%</b>
<b>Grand Total</b>	<b>1,761</b>	<b>100%</b>	<b>34,153</b>	<b>100%</b>

### 3.2.3 Spill Occurrence by Activity/Facility Type

Table 6 shows the number and volume of oil spills by activity/facility type. The largest number (1,429) and 81% of the volume (26,645 bbl) of recorded spills were attributed to oil production facilities. The support facilities/services category accounted for the next highest number (121) and 9% of volume (3,164 bbl). All other facility categories total of 211 spills and 13% of the volume (4,344 bbl). It is likely that there is overlap and inconsistency in reporting of facility type in these data. For instance, spills from vehicles may be recorded under support facilities/services.

**Table 6. Alaska North Slope spill occurrence and percent of total spill volume by activity/facility type, 1971-2019**

Activity/Facility Type	Number	Percent Number	Total Volume (bbl)	Percent Total Volume
Oil Production	1,429	81%	26,645	78%
Support Facility/Services	121	7%	3,164	9%
Vehicle	69	4%	1,639	5%
Oil Exploration	23	1%	1,284	4%
Unknown	95	5%	1,036	3%
Bulk Fuel Terminal	14	1%	333	1%
Air Transportation	6	<1%	28	<1%
Transmission Pipeline	2	<1%	21	<1%
Waste Disposal	2	<1%	3	<1%
<b>Grand Total</b>	<b>1,761</b>	<b>100%</b>	<b>34,153</b>	<b>100%</b>

### 3.2.4 Spill Occurrence by Substance Type

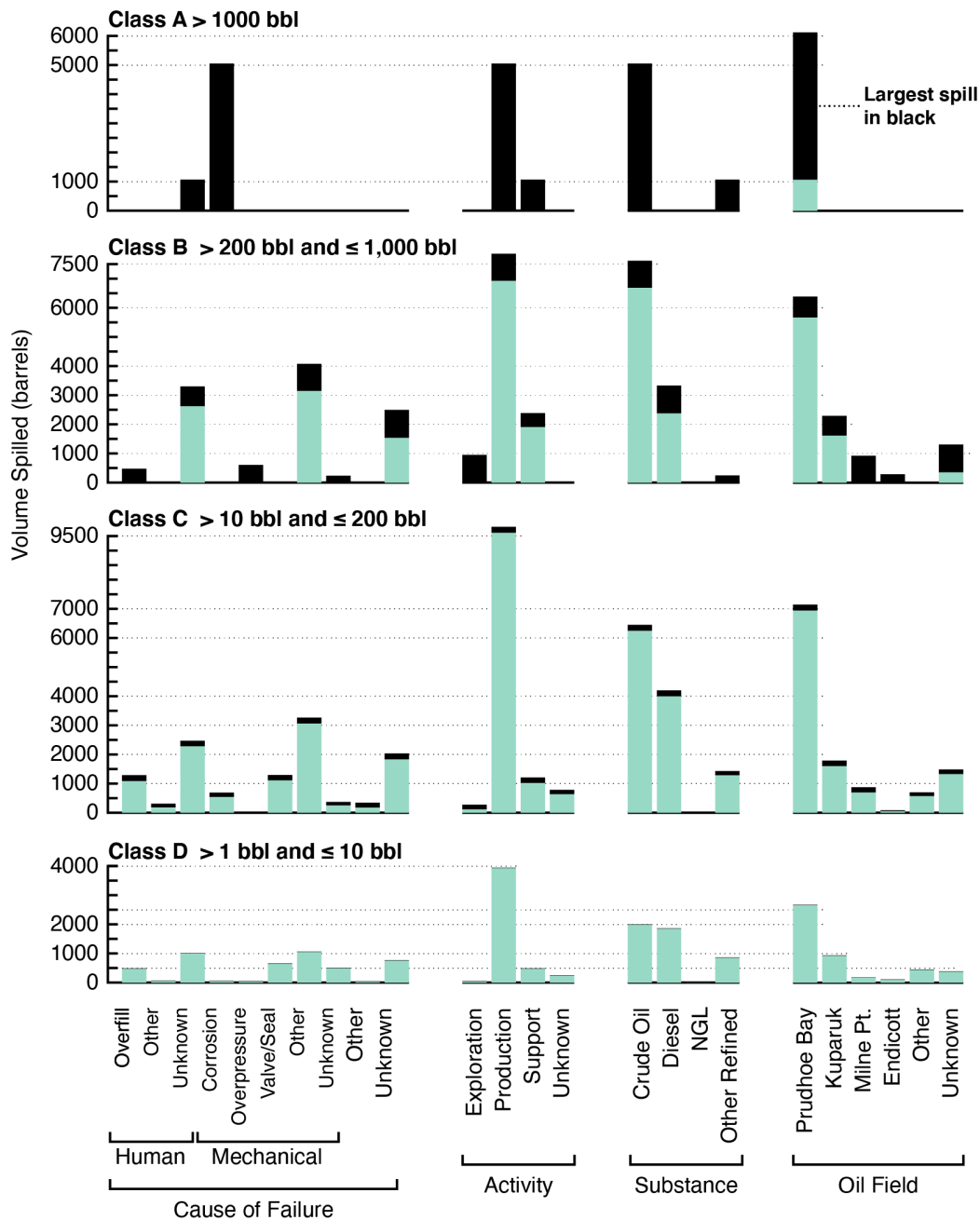
Table 7 shows the number and volume of oil spills by substance. The largest number of spills were refined oil (1,042), but these spills only accounted for 38% of the total volume. The crude oil category accounted for 719 spills but 62% of total volume (21,123 bbl). Much of the difference between crude oil and refined oil volume can be traced to the two Class A oil spills (1,071 in 1971 and 5,054 bbl in 2006). In general, the potential spill size will be bigger for crude oil than for refined oil because the quantity of crude oil handled is vastly larger than the quantity of refined oil. However, refined oil is handled in many more processes and is therefore more likely to be spilled.

**Table 7. Alaska North Slope spill occurrence and percent of total spill volume by substance, 1971–2019**

<b>Substance</b>	<b>Number</b>	<b>Percent Number</b>	<b>Total Volume (bbl)</b>	<b>Percent Total Volume</b>
Crude Oil	719	41%	21,123	62%
Refined	1,042	59%	13,030	38%
Refined: Diesel	680	39%	9,397	28%
Refined: Other	356	20%	3,616	11%
Refined: Natural Gas Liquids	6	0.3%	18	0.1%
<b>Grand Total</b>	<b>1,761</b>	<b>100%</b>	<b>34,153</b>	<b>100%</b>

### 3.2.5 Summary Spill Data by Size Class

Figure 3 presents the volume of recorded oil spills by size class for cause, activity/facility type, substance, and oil field/infrastructure.



**Figure 3. Overview of Alaska North Slope spills by size class, cause, activity/facility, substance, and oil field, 1971–2019**

Table 8 shows the number and volume of recorded oil spills by size class. The Class A contains the lowest number (2) and the third largest volume (6,125). Thus, the smallest spill size category contains 83% of the number of spills (1,475), but represents only 14% of the total volume spilled (4,739 bbl). Classes B and C account for about the same volume spilled, but there were 10 times more class C spills compared to Class B.



**Table 8. Alaska North Slope spill occurrence and percent of total spill volume by size class, 1971–2019**

Size Class	Number	Percent	Total Volume (bbl)	Percent Total Volume
A > 1,000 bbl	2	<1%	6,125	18%
B > 200 bbl & ≤ 1,000 bbl	25	1%	11,202	33%
C > 10 bbl & ≤ 200 bbl	269	15%	12,087	35%
D 1 bbl & ≤ 10 bbl	1,465	83%	4,739	14%
<b>Grand Total</b>	<b>1,761</b>	<b>100%</b>	<b>34,153</b>	<b>100%</b>

Table 9 presents the two Class A (> 1,000 bbl) and 26 Class B (>200 and ≤1,000 bbl) oil spills recorded in the Alaska North Slope. The largest spill of 5,054 bbl (March 2006) was from a mechanical failure due to corrosion of a pipeline in the Prudhoe Bay oil field which was then operated by BP Exploration, Alaska. The second largest spill of 1,071 bbl (June 1971) was from human error, but the source and location are unknown.

**Table 9. Two Class A and 26 Class B spills recorded in the Alaska North Slope, 1971–2019**

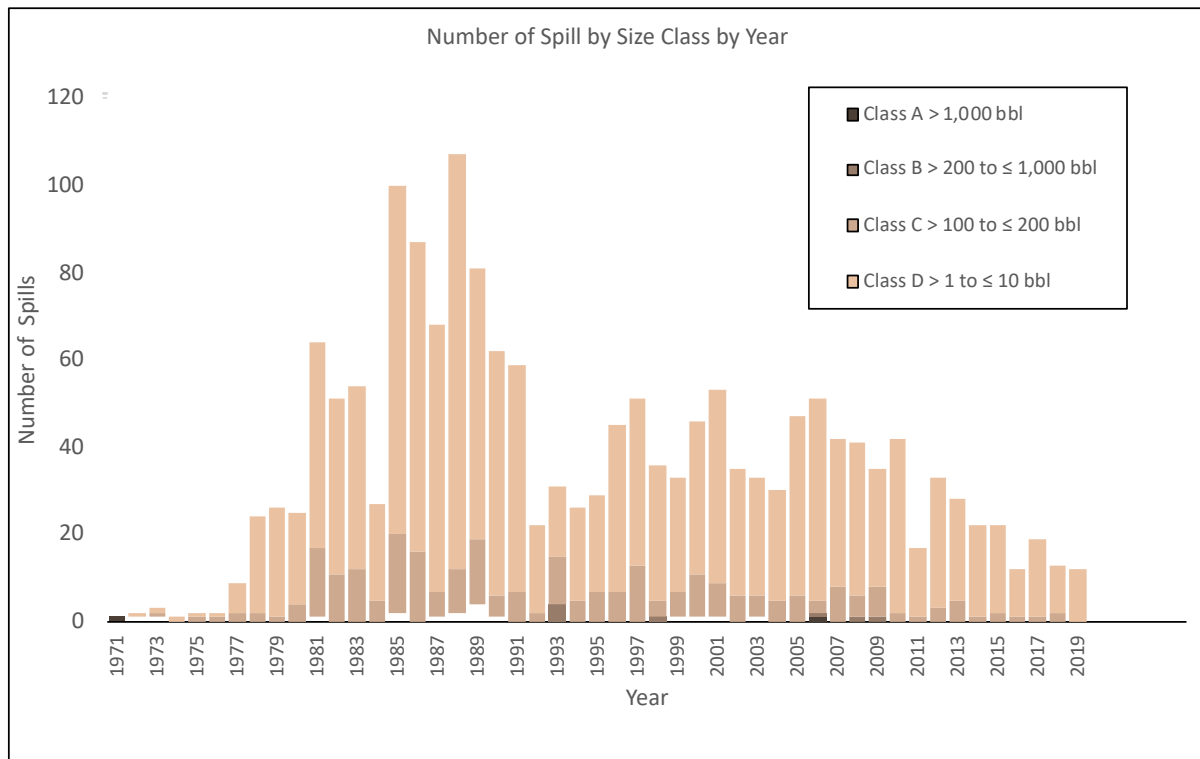
Date	Spill Volume (bbl)	Oil field	Substance	Source	Cause
<b>Class A Spills</b>					
6/3/71	1071	Prudhoe Bay	Refined	Unknown	Human Error: Unknown
3/2/06	5054	Prudhoe Bay	Crude	Pipe or Line	Mechanical Failure: Corrosion
<b>Class B Spills</b>					
1/5/72	476	Prudhoe Bay	Refined	Unknown	Human Error: Overfill
7/16/73	952	Unknown	Refined	Unknown	Unknown
8/22/81	450	Prudhoe Bay	Refined	Unknown	Mechanical Failure: Other
6/2/85	238	Prudhoe Bay	Crude	Unknown	Mechanical Failure: Unknown
11/14/85	250	Prudhoe Bay	Refined	Unknown	Human Error: Unknown
1/5/87	357	Prudhoe Bay	Refined	Unknown	Human Error: Unknown
2/8/88	287	Endicott	Crude	Unknown	Unknown
3/30/88	281	Prudhoe Bay	Crude	Pipe or Line	Human Error: Unknown
4/18/89	357	Unknown	Refined	Unknown	Unknown
7/28/89	925	Milne Point	Crude	Unknown	Mechanical Failure: Other
8/25/89	600	Kuparuk River	Crude	Pipe or Line	Human Error: Unknown
11/8/89	265	Kuparuk River	Crude	Unknown	Mechanical Failure: Other
12/10/90	600	Prudhoe Bay	Crude	Unknown	Unknown
6/10/93	300	Prudhoe Bay	Crude	Unknown	Mechanical Failure: Other
8/17/93	675	Kuparuk River	Crude	Unknown	Human Error: Unknown
9/26/93	650	Prudhoe Bay	Crude	Unknown	Mechanical Failure: Other

Date	Spill Volume (bbl)	Oil field	Substance	Source	Cause
12/30/93	400	Prudhoe Bay	Crude	Unknown	Human Error: Unknown
1/10/98	300	Kuparuk River	Crude	Unknown	Unknown
4/7/99	260	Prudhoe Bay	Refined	Unknown	Human Error: Unknown
8/21/00	715	Prudhoe Bay	Crude	Unknown	Mechanical Failure: Other
2/19/01	607	Prudhoe Bay	Crude	Pipe or Line	Mechanical Failure: Overpressure
11/17/03	262	Prudhoe Bay	Refined	Tank	Human Error: Unknown
10/31/06	220	Prudhoe Bay	Refined	Unknown	Human Error: Unknown
12/25/08	452	Kuparuk River	Crude	Pipe or Line	Mechanical Failure: Other
11/29/09	321	Prudhoe Bay	Crude	Pipe or Line	Mechanical Failure: Other

## 4 TREND ANALYSIS

### 4.1 Choosing a Timeframe for Trend and Occurrence Analysis

Review of the 1971–2019 dataset compiled for this project (and summarized in Section 3) indicated that data prior to 1996 appeared less reliable than 1996–2019. While the first oil production data for the Alaska North Slope occurred in April 1969, the first recorded spill in the dataset did not occur until more than 2 years later (June 1971). The June 1971 spill was a large one (Class A of 1,071 bbl.) The first small spill (Class D) was recorded in 1972. Records for fewer than 20 spills per year were identified before 1978 when the Alaska Pipeline became operational and the oil production was ramping up. See Figure 4.



**Figure 4. Number of recorded oil spills by size class in the Alaska North Slope region, 1971–2019**

Two timeframes were considered for a trend analysis: 1988–2019 and 1996–2019. The 1988–2019 timeframe was initially considered desirable because it would offer a larger sample size (31 years) and thus more statistical power to the model. However, data from 1996 onward had adequate sample size (23 years) and was collected after improvements to the State of Alaska reporting system had been established in 1995. A final decision on which timeframe to use for the trend analysis was made based on comparing models constructed using both timeframes. Each model's ability to predict the last decade's (2009–2019) spill numbers was then compared. A statistic called the root mean square error (RMSE) was used. RMSE is computed by averaging the squared deviations (predicted value - observed value) and then taking the square root of that figure. When comparing models, the one with the lowest RMSE is generally better. It was found that:

- The RMSE using a model built from 1988–2019 data was 7.80
- The RMSE using a model built from 1996–2019 data was 7.84

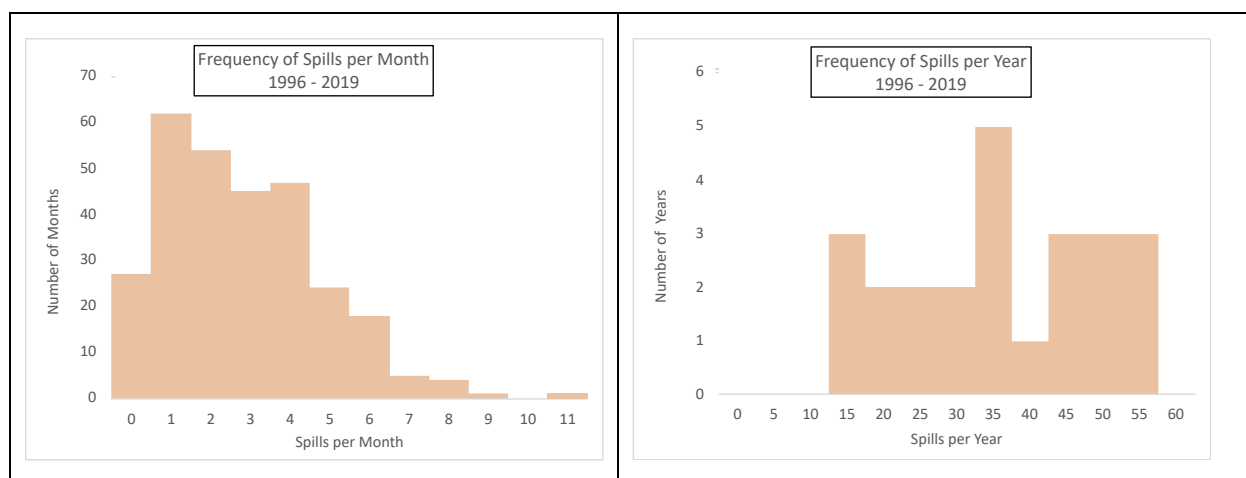
This difference between the two models is very small and indicates that using a model built from the more recent dataset (1996–2019) will not be inferior to the longer dataset of 1988–2019. Thus, it was decided that data from 1996–2019 (23 years) would be used for trend analysis and occurrence rate estimates. This decision was also supported by the following aspects of the operational context:

- Inconsistency in spill databases before 1995 (the current State of Alaska database was begun mid-year that year)
- Inconsistency in spill reporting and reporting requirements in early years
- Industry spill prevention practices improved after 1990 and thus spills since that time reflect current practices.

## 4.2 Annual Data vs. Monthly Data

It was also necessary to decide whether to focus on a model built using monthly data or annual data. Monthly data would have provided a much greater sample size and consequently more power if a valid model could be achieved. However, data on the number of spills per month has some features that make it unsuitable for modeling. First, the distribution is highly non-normal. Second, even those months with spills generally have a very small number of spills for statistical purposes. So, the interval variable ‘spills per month’ does not approximate a continuous variable suitable for modeling. For annual data there were no years with fewer than 12 spills and the range was from 12 to 54 for 1996–2019. In short, the distribution using annual data was more normal, which is a prerequisite for linear regression modeling.

Figure 5 compares the distributions of Alaska North Slope monthly spills vs. annual spills 1996–2019.



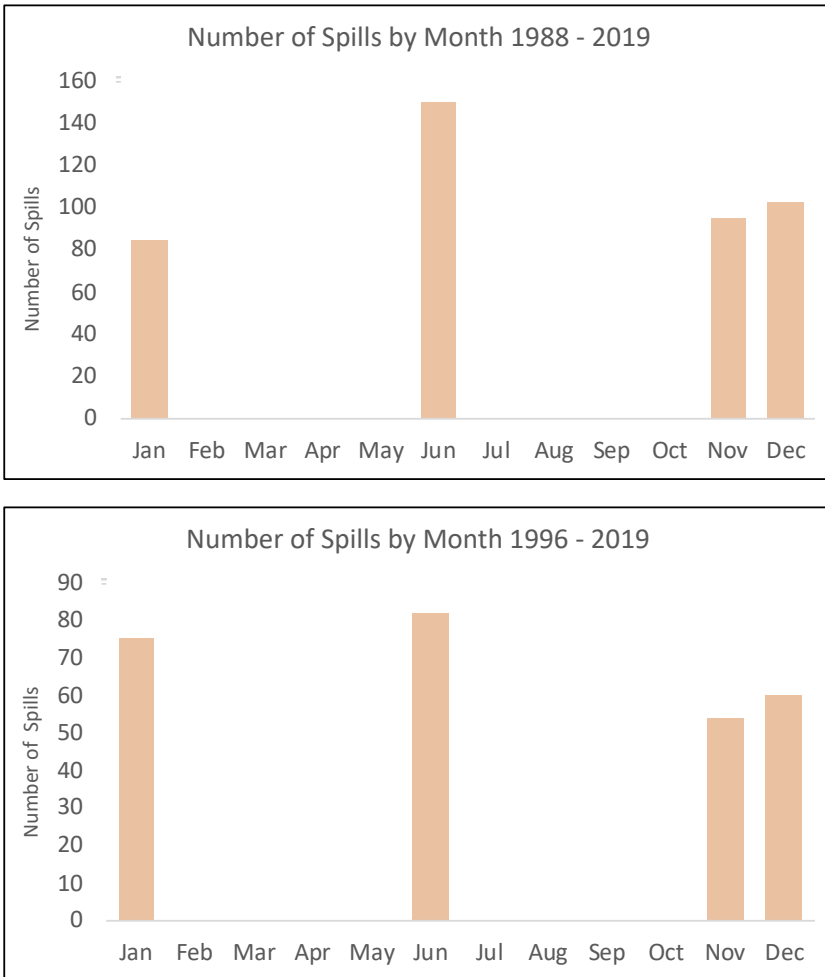
**Figure 5. Comparison of the frequency distribution for spills per month vs. spills per year for Alaska North Slope spills, 1996–2019**

## 4.3 Seasonality in Alaska North Slope Spill Rates

We examined both 1988–2019 and 1996–2019 spill data to determine whether or not there is a seasonal pattern inherent in Alaska North Slope spills (Figure 6). In both timeframes, more spills were recorded in June than any other month and the fewest spills were recorded in October. One possible explanation of more spills in June is that more maintenance and construction activities may occur during long daylight and mild temperatures. Previous spills might also be revealed under melting snow and ice. The smaller number of spills recorded in the fall may be due to there being less activity in advance of freeze-up and reduced daylight. We used the Kruskal-Wallis test to determine if this variation by month in the median number of recorded spills was statistically significant and found that it was for 1988–2019 but not for 1996–2019.<sup>6</sup> The same seasonal pattern is evident in both time frames but was not as pronounced or

<sup>6</sup> Kruskal-Wallis: 1998–2019 chi-squared = 19.51, df = 11, p-value = 0.05  
1996–2019 chi-squared = 15.08, df = 11, p-value = 0.18

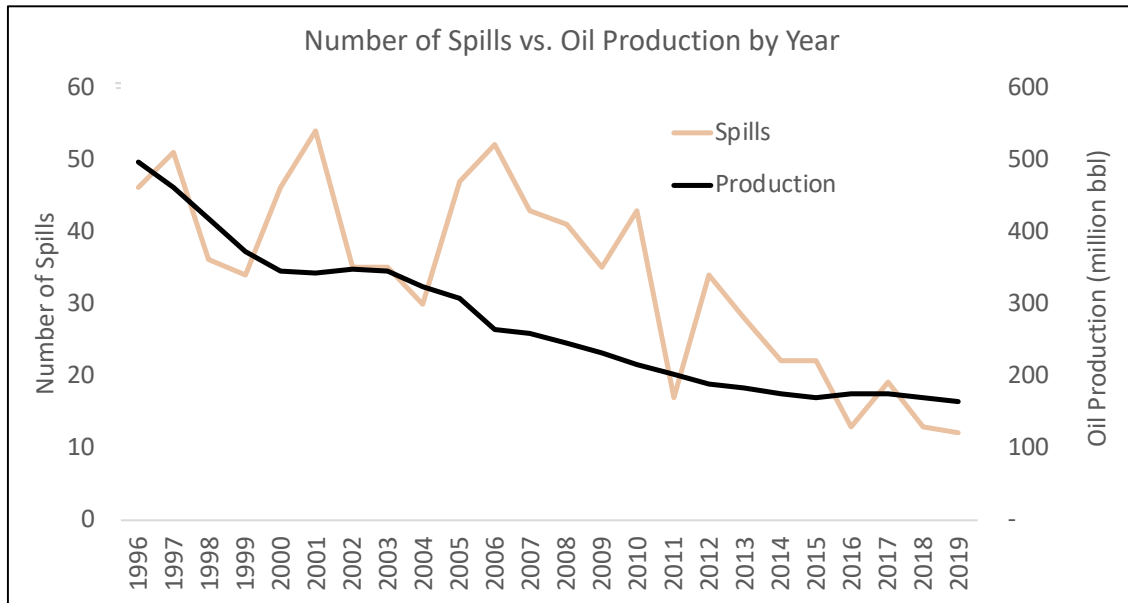
statistically significant in the 1996–2019. The seasonality of Alaska North Slope spills appears to have weakened over time.



**Figure 6. Total number of recorded oil spills by month in the Alaska North Slope region, 1988–2019 and 1996–2019**

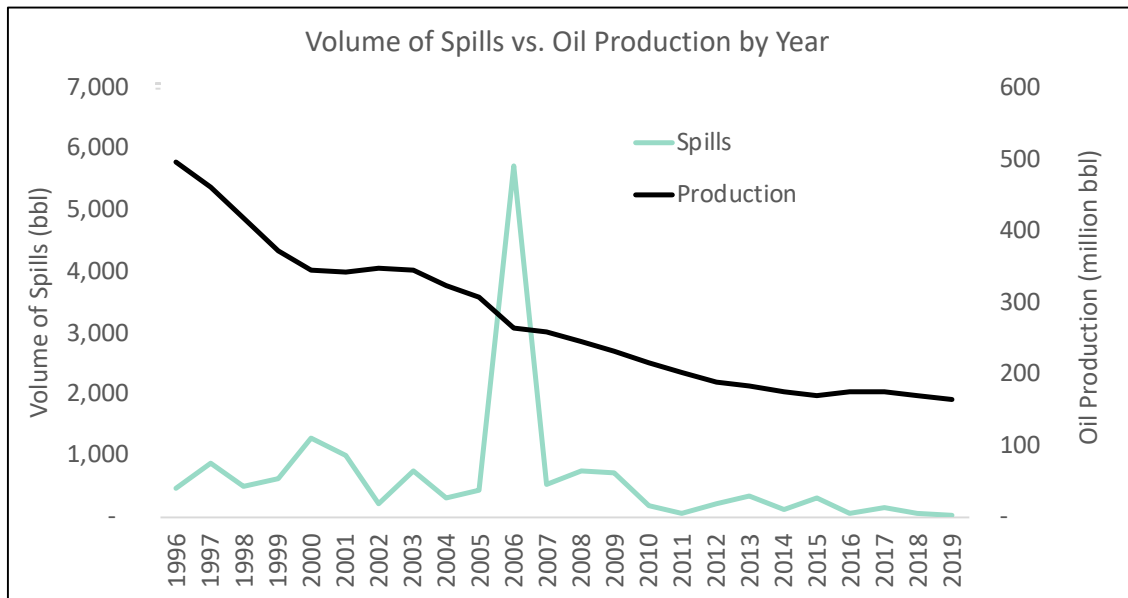
#### 4.4 Spill Trends by Year

Figure 7 shows the annual recorded number of spills plotted against the annual oil production for the Alaska North Slope region from 1996 through 2019. The graph suggests that for this time range the number of spills roughly follows the production curve when annual values for each are plotted simultaneously. Clearly as production dropped over time, so did the total number of spills recorded.



**Figure 7. Annual number of recorded oil spills plotted against the annual oil production for the Alaska North Slope region, 1996–2019**

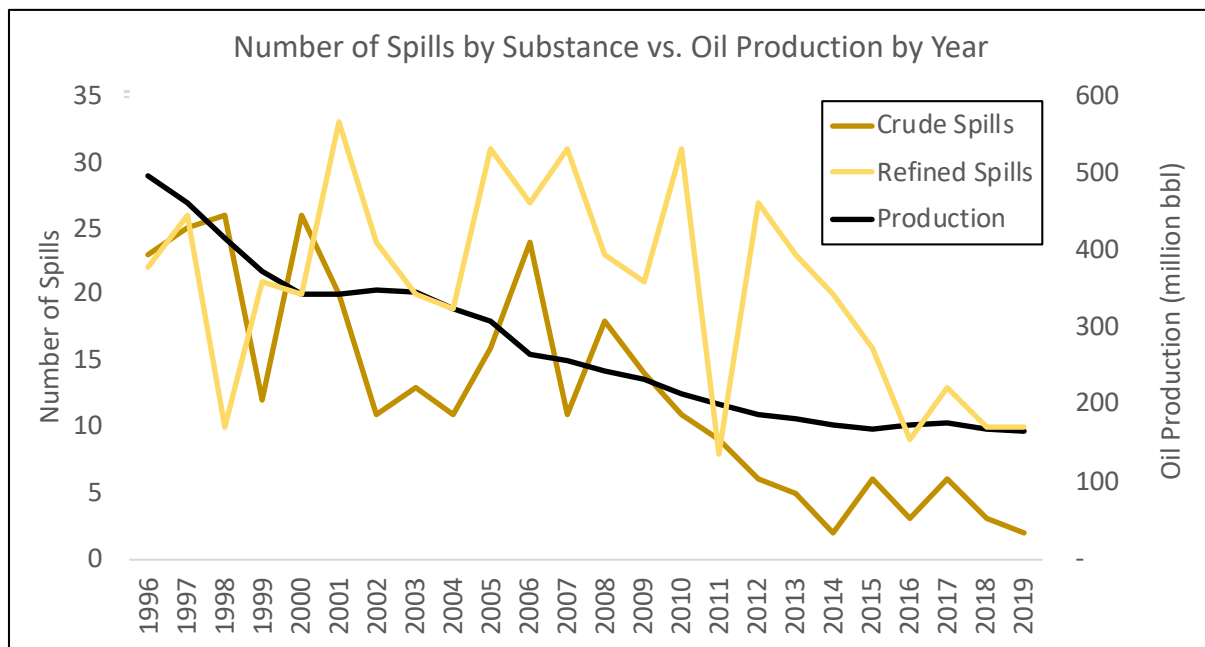
Figure 8 shows the annual volume of recorded oil spills compared to annual oil production for the Alaska North Slope region from 1996–2019. The large spill in 2006 is a clear anomaly. In contrast to the number of spills, the spill volume, however, does not closely follow the production profile. This indicated that predicting the number of spills will be easier than predicting the volume spilled.



**Figure 8. Annual recorded volume of oil spills plotted against the annual oil production for the Alaska North Slope region, 1996–2019**

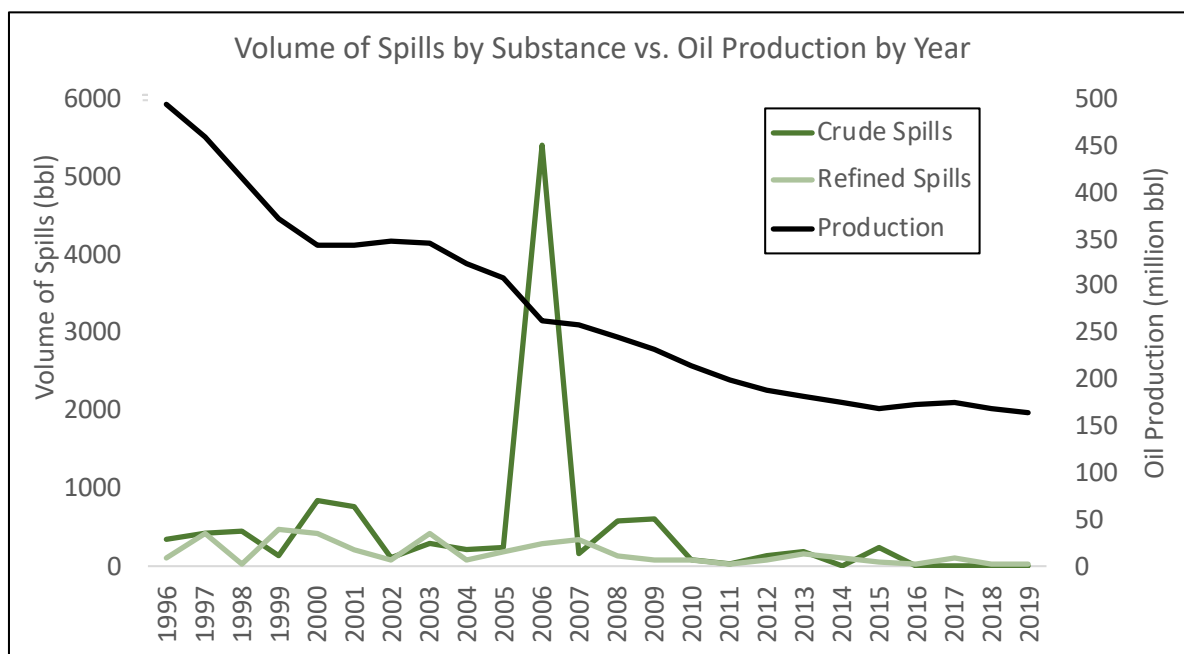
## 4.5 Spill Trends by Product Type

Figure 9 shows the yearly annual recorded number of crude and refined oil spills plotted against the annual oil production for the Alaska North Slope region from 1996–2019. The graph shows that while both crude and refined spills vary considerably, the trends in both follow the trends in oil production. Interestingly, the number of crude and refined spills track each other reasonably well until about 2010. At that point the number of crude spills starts to drop dramatically while the number of refined spills meanders around in its normal range for several years. Both types of spills “bottom out” after 2015, but at different levels. The number of refined spills appears to have a floor value of about 10 spills per year and the number of crude spills appears to have stabilized at about 5 spills per year. However, the data doesn’t provide information on why this lower limit exists and it doesn’t provide insights into how it could change in the future.



**Figure 9. Annual recorded number of oil spills for crude oil and refined oil plotted against the annual oil production for the Alaska North Slope region, 1996–2019**

Figure 10 shows the annual volume of recorded crude and refined oil spills plotted against the oil production for the Alaska North Slope region in the years from 1996–2019. Neither the crude nor the refined spill data follows the trend in oil production. Once again, the 2006 Class A crude oil spill stands out.



**Figure 10. Annual recorded volume of oil spills for crude oil and refined oil plotted against the annual oil production for the Alaska North Slope region, 1996–2019**

## 5 SPILL RATE OCCURRENCE ESTIMATES

The overall purpose of this project was to develop a method to estimate oil spill rates based on independent variables. This section describes the process and results of that effort.

### 5.1 Annual Number of Spills Over Time

#### 5.1.1 Screening Independent Variables

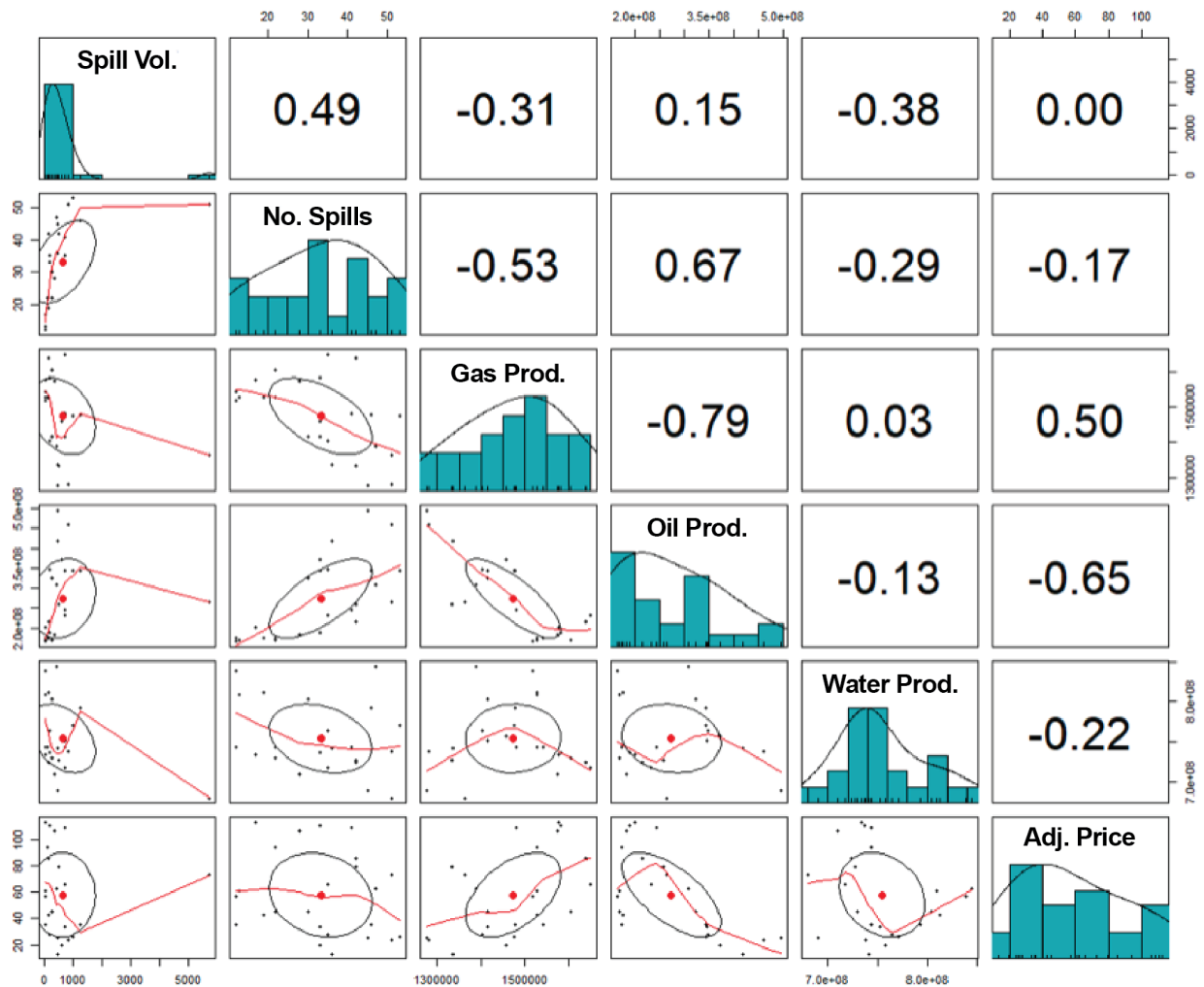
The first step in building an occurrence rate estimation model is to screen independent variables. The initial screening was done using scatterplots and Pearson Correlation Coefficients. Scatterplots give an indication graphically of whether or not a relationship exists between two variables. That relationship may be linear, quadratic, or some other shape. The Pearson Correlation Coefficient, also referred to as  $r$ , measures the strength of the observed linear relationship. A relationship that is perfectly linear will have an  $r$  value of 1 or -1, the sign indicating whether the relationship is direct or inverse. A completely uncorrelated pair of variables would have an  $r$  of zero. In real situations the observed  $r$  lies between these extremes.

The dependent variables screened were the total volume of oil spilled each year (Spill Vol.) and the total number of spills each year (No. Spills). The candidates for inclusion in a model as independent variables were: the annual volume (million cubic feet) of gas produced from gas wells (Gas Prod.), the annual volume (MMbbl) of oil produced from oil wells (Oil Prod.), the annual volume (million barrels) of water produced from oil wells (Water Prod.), and the average inflation adjusted price (US \$) of Alaskan crude



each year (Adj. Price). Pipeline mileage per year for the Alaska North Slope region was sought but there was not a comprehensive pipeline data source covering the time frame from 1996 to 2019. It was found to be a contributor to an occurrence model in an earlier study (Robertson et. al. 2013) and may be valuable in future efforts if the data can be sourced.

Figure 11 presents a scatterplot matrix, distribution, and the Pearson Correlation Coefficient for each variable considered for inclusion in the modeling process.



**Figure 11. Scatterplot matrix, distribution, and the Pearson Correlation Coefficient for each variable considered for inclusion in the modeling process**

Considering the p-values for the correlations between annual number of spills and each independent variable in Table 10, all Pearson Correlation Coefficient values, except adjusted price are significant at the 95% confidence level. All of these independent variables were kept in the initial screen process.

**Table 10. Pearson Correlation Coefficient and p-value for independent variables related to annual number and volume of spills recorded in Alaska North Slope, 1996–2019**

Independent Variable	Annual number of spills	
	Pearson Correlation Coefficient	p-value
Gas Production	-0.531	0.008
Oil Production	0.671	0.0003
Water Production	0.286	0.176
Adjusted Price	-0.172	0.421

The results of this analysis indicate that:

1. The linear correlations were significantly stronger between the potential independent variables and the number of spills observed than between the volume of oil spilled. This further reinforces the decision to focus the regression work on explaining the number of spills, not the volume spilled.
2. It was ultimately decided that all of the potential independent variables merited inclusion in the initial screening models.

### 5.1.2 Modeling Approach

We used the following approach to select a suitable model:

1. All candidate independent variables were placed in a regression model as main effects (i.e. appearing alone as a term) and in all possible 2-way interactions (i.e. appearing as a term multiplying the variable with another variable).
2. The statistical software program “R” was used for regression modeling. R’s automatic step-wise variable selection procedure was run to find the model that minimized the Akaike Information Criteria (AIC statistic).
3. This procedure did not account for multicollinearity existing between the variables, so starting with the model suggested in the step-wise approach, a manual backward variable selection process was employed that removed terms based on which had the highest non-significant p-value and/or the highest Variable Inflation Factor (VIF statistic). The goal was to keep only models for which all terms had a VIF less than 10.

## 5.2 Predicting Annual Spill Numbers from Crude Oil Production Using Linear Regression

Applying this modeling approach to the Alaska North Slope annual spill data resulted in a regression model with two independent variables: Oil Production and Adjusted Price. Other independent variables were eliminated through the modeling process due to strong multicollinearity existing between the variables.

The resulting linear regression model was:  $N_{tot} = -11.66664 + Oil\_Prod. \times 0.12482 + Adj\_Price \times 0.18513$

Where:  $N_{tot}$  = total annual number of spills for all spill types and classes

$Oil\_Prod.$  = annual volume of crude oil produced from oil wells in million barrels

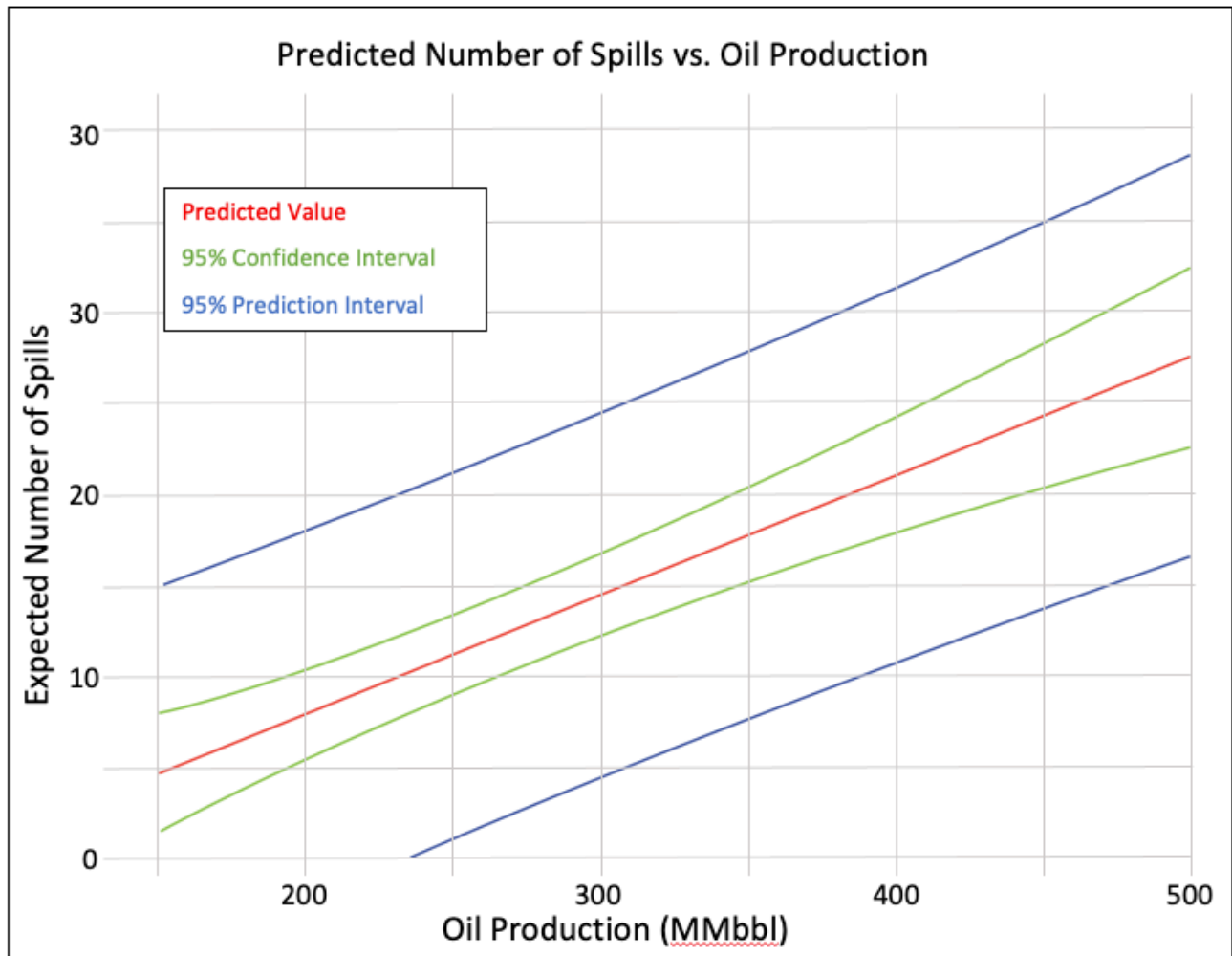
$Adj\_Price$  = Alaska North Slope crude oil price in US adjusted by Consumer Price Index to 2019.

The relevant statistics for this model are shown in Table 10.

**Table 11. Statistics for the linear regression model predicting annual spills number from oil production and adjusted price**

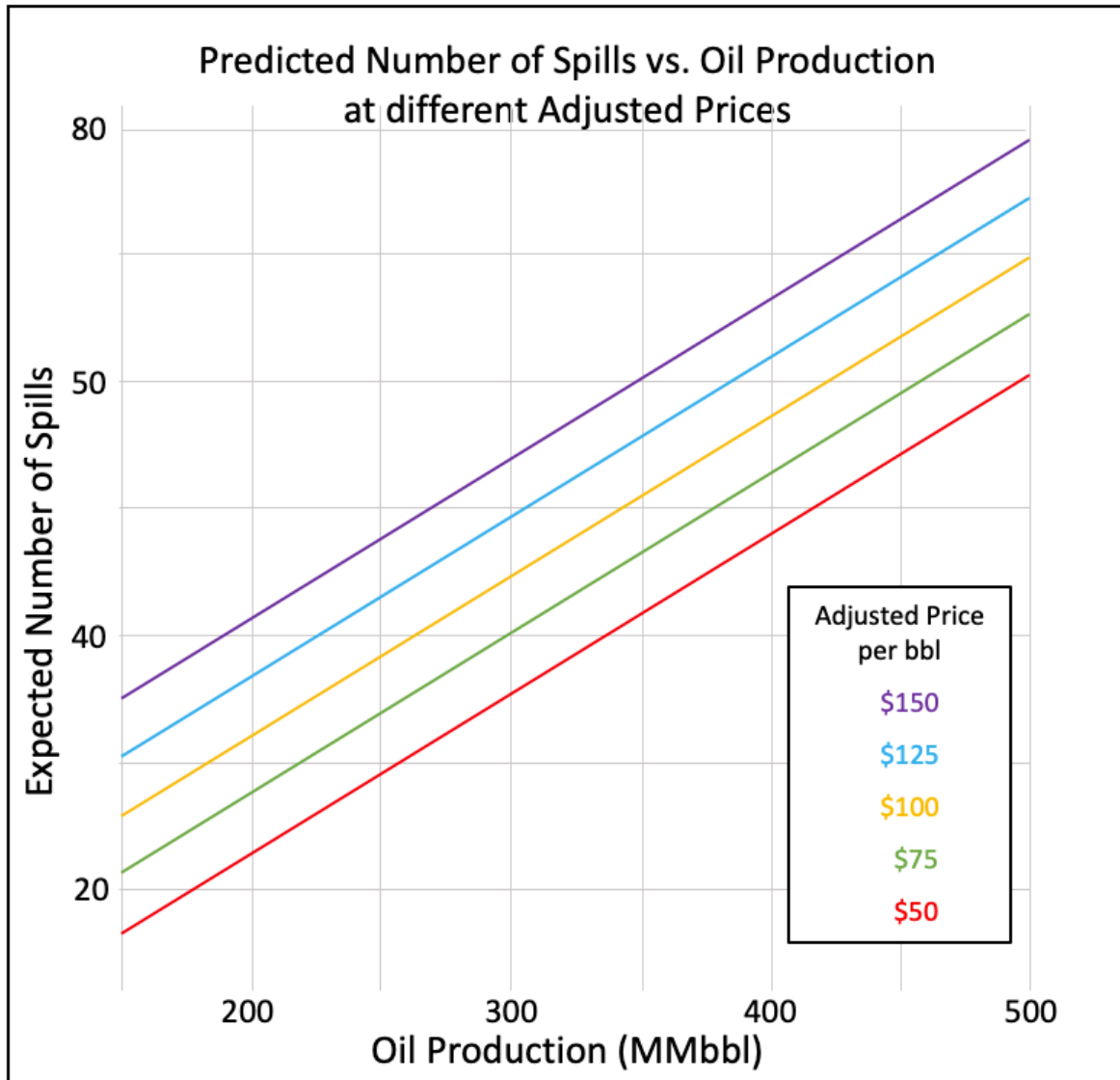
<b>Coefficients</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>t value</b>	<b>p-value</b>	<b>Significance</b>
<i>Intercept</i>	-11.66664	10.24625	-1.139	0.268	
Oil Prod.	0.12482	0.02427	5.144	0.000043	0.001
Adj. Price	0.18513	0.07610	2.433	0.024	0.05
Residual Standard Error		8.825	Degrees Freedom		21
Multiple R-squared		0.5706	Adjusted R-squared		0.5297
F-statistic		13.95	on 2 and 21 degrees of freedom		
p-value		0.0001396			

The model indicated that for every increase of one MMbbl of oil production, the total number of annual spills for all spill types and classes is expected to increase 0.12 units (recorded spills). The model says that, when controlling for inflation adjusted price of ANS crude oil, every increase of \$1 per barrel will change the expected number of spills by 0.19 units. The model explains 53% of the variation observed in the annual number of spills. Figure 12 shows the model's predicted value, the 95% confidence interval, and the 95% prediction interval for the range of oil production values studied. The confidence interval is the range that one would expect the mean value of the spill number to fall in 95% of the time when a given production level occurs a large number of times. The prediction interval is the range that one would expect any one value of the spill number to lie in for a given oil production level 95% of the time.



**Figure 12. Predicted value, 95% confidence interval, and 95% prediction interval for the expected number of all oil spills for the range of oil production values studied with adjusted price of \$75 per barrel for the Alaska North Slope region**

As mentioned above, the plot above was created using a fixed adjusted price of \$75 per bbl. However, our best model indicates that, while oil production is the most significant variable, changing prices also have an impact on expected spills. The graph below shows how the expected number of spills shifts upward as price increases. This is likely due to multiple factors. One might be that in a higher price environment there are more funds available for construction and maintenance which can increase spills. It's also possible that higher prices result in increased pressure to produce.



**Figure 13. Predicted number of all oil spills for the range of oil production values studied at five different adjusted oil prices**

The model's calculated multivariate power was 0.9983<sup>7</sup>. The model has exceptionally good power leading to high confidence in its explanatory value.

The model had reasonably normally distributed residuals (i.e. predicted value - observed value), and the equal variance assumption for linear regression was satisfied. Both of these factors indicate the validity of the model.

<sup>7</sup> Where  $u = 2$ ,  $v = 21$ ,  $f_2 = 1.3289$ , significance level = 0.5 (i.e. 95% confidence).

The model diagnostic software indicated two outliers (point 6 -2001 and point 16 - 2011) and one leverage point (point 1 - 1996). However, no points were considered to have exerted undue influence on the model’s coefficients.

### 5.3 Predicting Annual Spill Volume from Crude Oil Production

Attempts to develop a regression model to estimate the annual volume of oil spills in the Alaska North Slope region failed for two reasons. First, as seen in Figure 14, the distribution of the dependent variable, annual volume of spills, has a strong positive skew which suggests that the normality assumption required for regression would be violated. Second, the individual correlations of the independent variables with Spill Volume are all weak as seen in Table 12 and Figure 14. No variable has a significant linear relationship with the total volume spilled at 95% confidence level, although the correlation with produced water was significant at the 90% confidence level.

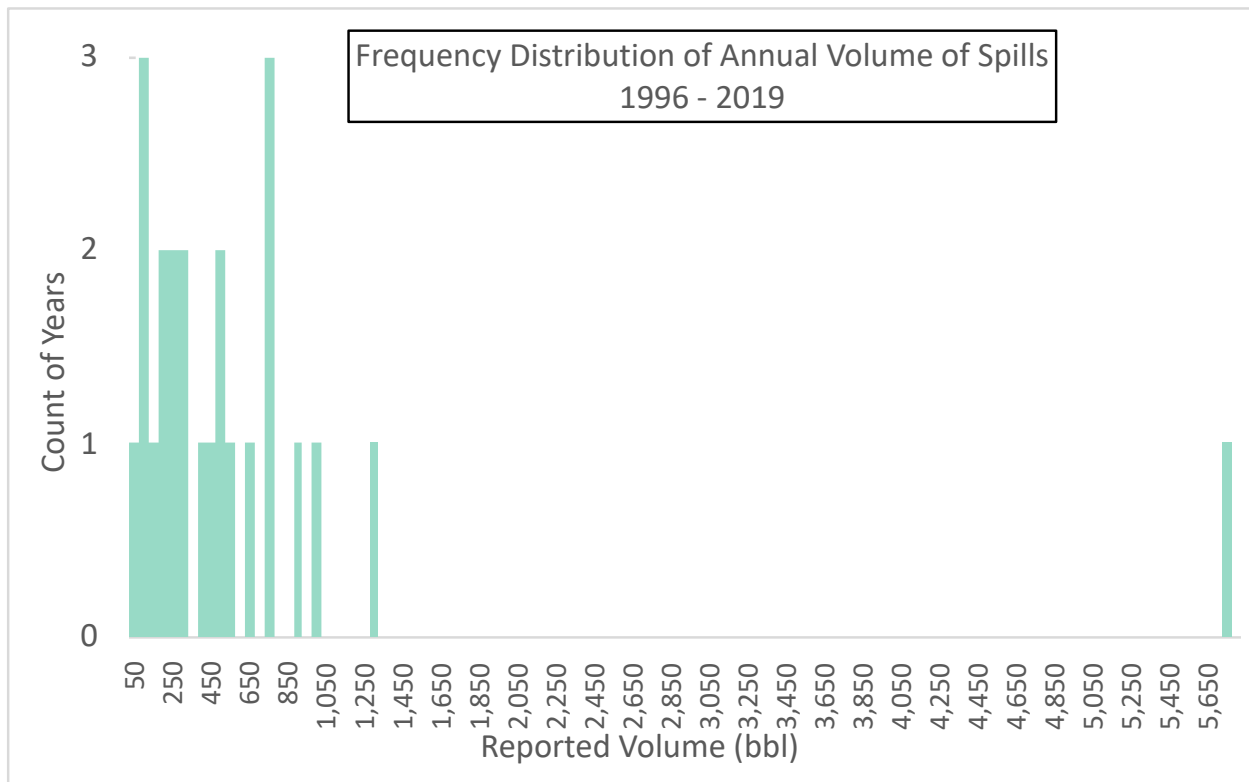


Figure 14. Distribution of volume of recorded oil spill in the Alaska North Slope region, 1996–2019

**Table 12. Pearson Correlation Coefficient and p-value for independent variables related to annual volume of spills recorded in the Alaska North Slope region, 1996–2019**

Independent Variable	Pearson Correlation Coefficient	p-value
Gas Production	-0.31	0.15
Oil Production	0.15	0.47
Water Production	-0.38	0.07
Adjusted Price	-0.003	0.988

Despite the weaknesses noted above, we attempted to develop a model to predict annual oil volume spilled. Using an automatic variable selection approach, we developed a multivariate model containing all independent variables. However, with an adjusted R-square of 0.024, only about 2% of the variability in annual spill volume was explained by the model. The p-value was 0.47 which is not significant at a 95% confidence level. For these reasons, the model was deemed unusable to predict annual spill volume.

An alternate simulation approach was used to arrive at estimates of spill volumes. This approach used a bootstrap technique to estimate median spill volume for each size class and combined this with a Monte Carlo simulation to generate confidence intervals for the estimate of the number of spills of each class size. Bootstrapping is a commonly used statistical tool for establishing estimates of parameters along with the parameter’s expected distribution. This approach was used to estimate both the proportion and median size of spills which would be expected to be in Classes A, B, C, or D.

In a bootstrap model, the spills in the database are assumed to be random events with equal probability. The software then samples the dataset, with replacement, repeatedly for a sample of the same size as that actually observed. For each sample drawn, the proportion of spills of each spill size class is computed, as well as the median<sup>8</sup> spill volume from the Class. The distribution of these sample statistics over a large number of trials represents the distribution that is expected to occur naturally. The results of the bootstrap estimate of the distribution of proportions for each spill class are shown in Figure 15.

A Monte Carlo simulation is used to estimate spill volume. A large number of trials were run in which randomly drawn records from the database were used to develop a model for number of spills. The prediction function generated an expected value for each trial. These spill number estimates are then combined with the estimated statistics for proportion and median size to come up with estimates of the number of spills expected from each size group and finally the total annual spill volume estimation. The procedure is outlined below:

1. The total number of spills expected is computed using the linear regression model with the adjusted price fixed at \$75. Multiple realizations from a Monte Carlo simulation yield a distribution of the expected number at a given production level. This allows for the estimation of a confidence interval.

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<sup>8</sup> Because the distribution of spill volume is highly skewed, the median is a better estimate of the expected value than the mean.

2. The proportion by spill size class is estimated using the bootstrapped procedure. This leads to the estimate of how many spills were in each class.
3. The median size of a spill in each size class as determined by the bootstrap procedure is then applied.

The formula to estimate the total annual spilled volume is:

$$Vol_{tot_y} = Pred\_N_{tot_y} \times Prop\_A \times Med\_A + Pred\_N_{tot_y} \times Prop\_B \times Med\_B + Pred\_N_{tot_y} \times Prop\_C \times Med\_C + Pred\_N_{tot_y} \times Prop\_D \times Med\_D$$

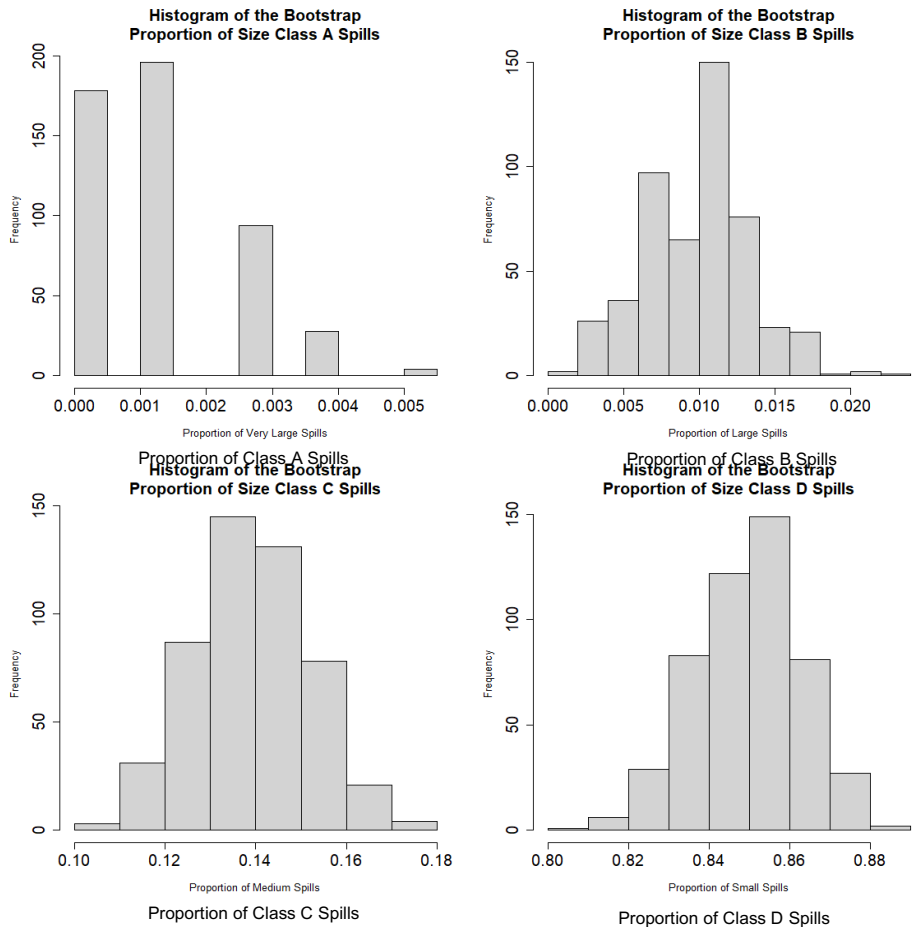
Where:  $Pred\_N_{tot_y}$  = total number of spills predicted for oil production level Y using the regression model with multiple realizations created via a Monte Carol simulation.

$Prop\_X$  = Proportion of spills from Class X estimated using the bootstrapped procedure

$Med\_X$  = Median spill size of Class X estimated using the bootstrapped procedure

This method was used for four levels of oil production: 150, 250, 350, and 500 MMbbl per year. Table 13 presents the predicted number of spills from each of these production levels taken from the linear regression model presented in Section 5.2. Table 14 presents the median spill size by class and corresponding 95% confidence intervals. Table 15 presents the estimated number of spills of each size class and the total annual volume of spill predicted for each level of oil production.





**Figure 15. Bootstrap estimate of the distribution of proportions for each spill class for Alaska North Slope Spills 1996–2019**

**Table 13. Expected annual number of spills and corresponding 95% confidence interval for four levels of oil production for the Alaska North Slope region with the adjusted crude oil price fixed at \$75 per bbl**

Oil Production (MMbbl)	Expected Total Number of Spills	95% Confidence Interval
150	21.2	14.9 - 27.5
250	33.8	29.4 - 38.2
350	46.4	39.2 - 53.6
500	65.3	51.2 - 79.4

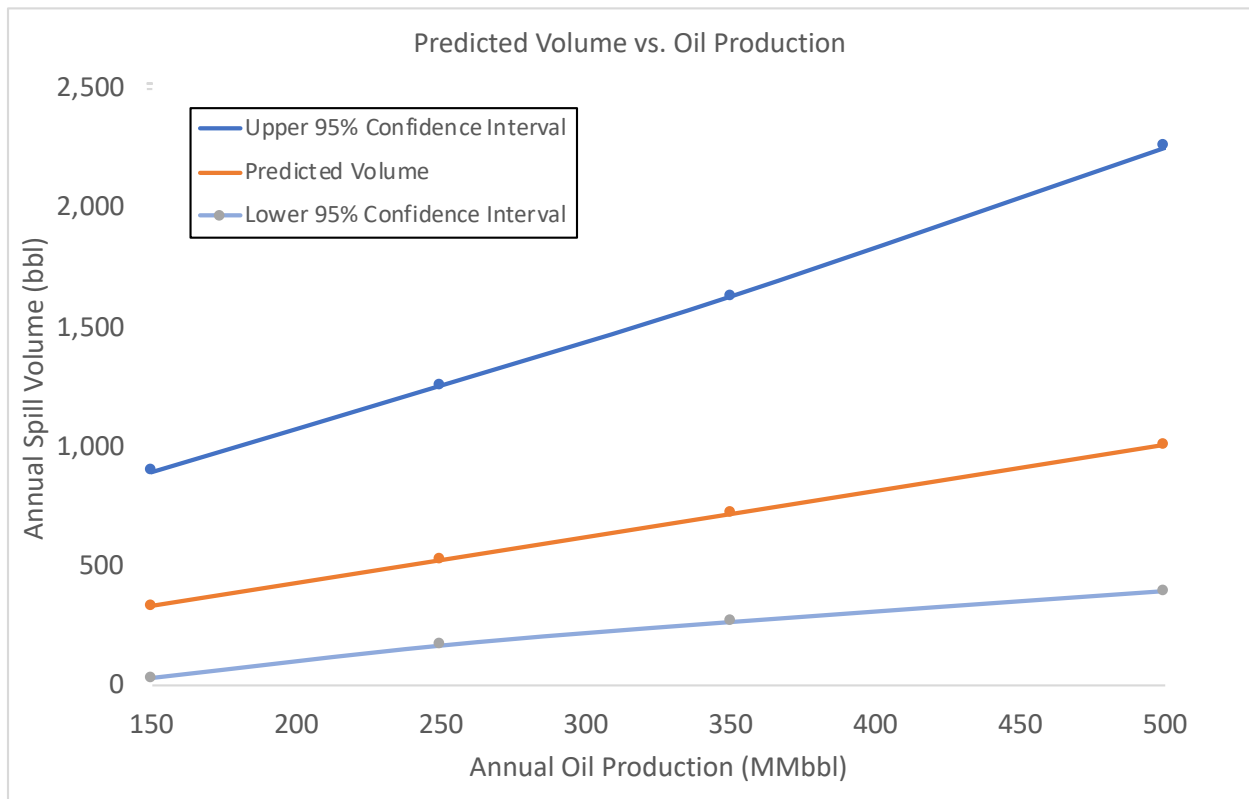
**Table 14. Median spill size by class and corresponding 95% confidence interval for Alaska North Slope recorded spills 1996–2019 with the adjusted crude oil price fixed at \$75 per bbl**

Class	Median Spill Size (bbl)	95% Confidence Interval
A > 1,000 bbl	5053.6	0 - 5,053.6
B > 200 & ≤ 1,000 bbl	321.4	260 - 607.14
C >10 & ≤200 bbl	25.6	23.4 - 34.9
D >1 & ≤10 bbl	2.4	2.1 - 2.4

**Table 15. Expected annual number of spills and corresponding 95% confidence interval four size classes and four levels of oil production with the adjusted crude oil price fixed at \$75 per bbl; and estimated total annual volume of spills for the Alaska North Slope region predicted from the bootstrap method and Monte Carlo simulation**

Oil Production (MMbbl)	Class A >1,000 bbl		Class B >200 & ≤1,000 bbl		Class C >10 & ≤200 bbl		Class D >1 & ≤10 bbl		All Classes	
	Expected Number of Spills	95% Confidence Interval	Expected Number of Spills	95% Confidence Interval	Expected Number of Spills	95% Confidence Interval	Expected Number of Spills	95% Confidence Interval	Total Annual Volume (bbl)	95% Confidence Interval
150	0.0	0 - 0.1	0.2	0 - 0.5	3	0.4 - 5.9	18.4	2.9 - 35.2	334	33 - 897
250	0.0	0 - 0.2	0.3	0.1 - 0.7	4.7	2.0 - 7.7	29.1	14.0 - 45.5	526	168 - 1,260
350	0.1	0 - 0.2	0.5	0.2 - 0.9	6.4	3.5 - 9.8	39.8	24.1 - 56.9	719	266 - 1,633
500	0.1	0 - 0.3	0.7	0.2 - 1.2	9	5.6 - 13.1	55.9	37.4 - 75.9	1,010	395 - 2,256

Figure 16 shows the predicted annual volume of oil spilled for the four levels of annual oil production and associated 95% confidence intervals.



**Figure 16. Bootstrap/Monte Carlo estimate of the predicted annual volume of oil spilled vs crude oil production for the Alaska North Slope region**

## 5.4 Estimating Occurrence Rates by Oil Type

We now turn to estimating the occurrence rates for number and volume by oil type, either crude oil or refined oil.

### 5.4.1 Occurrence Rates for Number of Spills by Oil Type

Figure 9 depicts the number of recorded oil spills by substance type (crude and refined) versus the crude oil production by year. We attempted to develop models to predict the number of annual spills for each substance type.

Applying our modeling approach to the Alaska North Slope annual crude oil spill data resulted in a regression model with Oil Production as the single independent variable.

The resulting linear regression model was:  $N_{crude\_tot} = -5.251565 + Oil\ Prod. \times 0.065857$

Where:  $N_{crude\_tot}$  = total annual number of crude oil spills

$Oil\_Prod.$  = annual volume of crude oil produced from oil wells in million barrels.

The relevant statistics for this model are shown in Table 16. Interestingly, Adjusted Price did not provide a significant contribution to the model with crude oil spills only.<sup>9</sup>

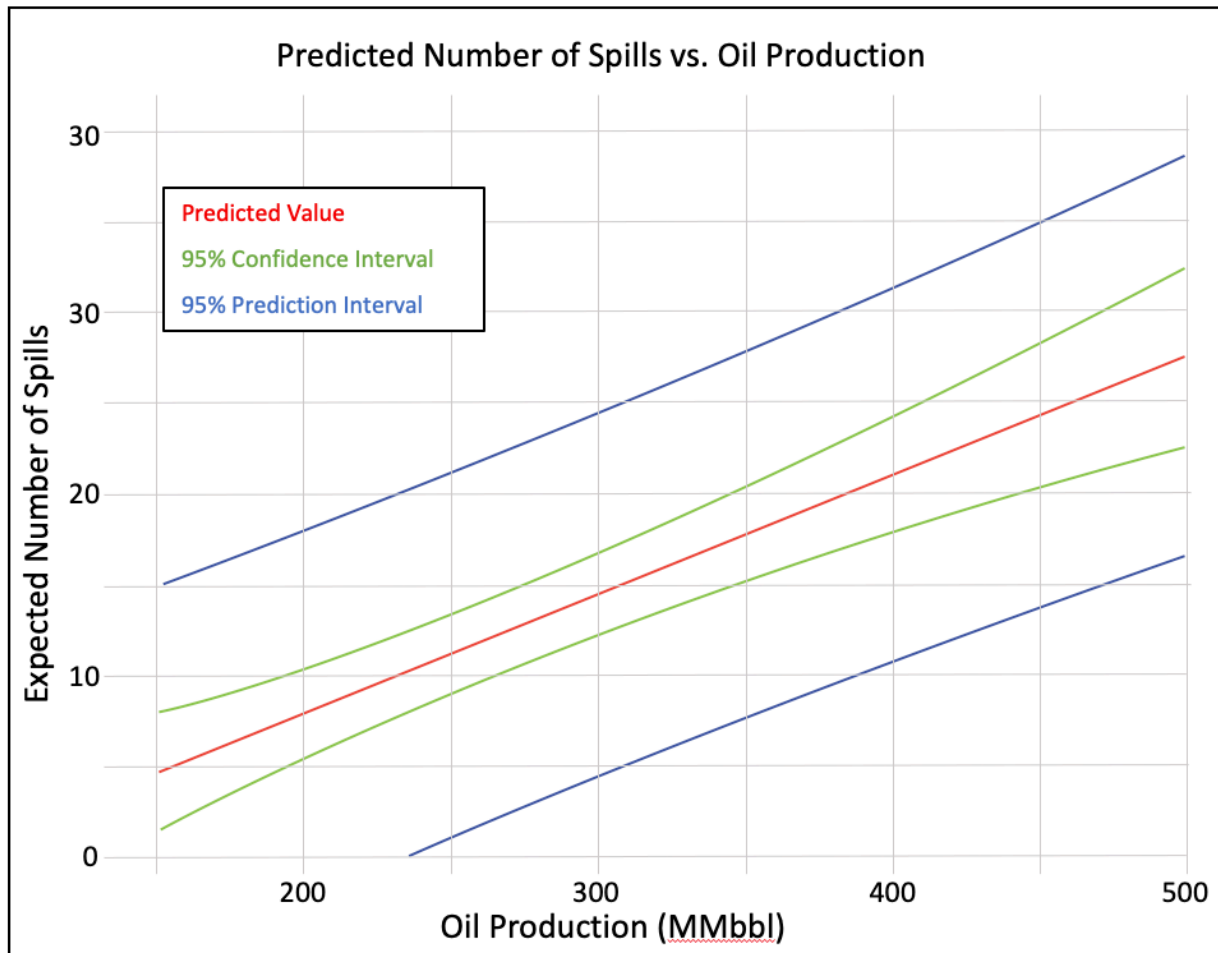
**Table 16. Statistics for the linear regression model predicting annual spills number of crude oil spills from oil production**

<b>Coefficients</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>T value</b>	<b>p-value</b>	<b>Significance</b>
Intercept	-5.251565	2.882137	-1.822	0.0821	
Oil Prod.	0.065857	0.009908	6.647	1.11e-06	0.001
Multiple R-squared		0.6676	Degrees Freedom		22
F-statistic		18.0117	Adjusted R-squared		0.6525
p-value		1.105e-06	on 1 and 22 degrees of freedom		

The model indicates that for every increase of one MMbbl of oil production the number of annual spills is expected to increase 0.066 units. The model explains 67% of the variation observed in the annual number of spills. Figure 17 shows the model's predicted value, the 95% confidence interval, and the 95% prediction interval for the range of oil production values studied.

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<sup>9</sup> The p-value for Adjusted Price in a multivariate model was 0.207.



**Figure 17. Predicted value, 95% confidence interval, and 95% prediction interval for the expected number of North Slope crude oil spills for the range of oil production values studied**

The occurrence model to predict annual number of crude oil spills is very similar to the model developed to predict annual number of all types of oil.

Regression techniques were applied to develop a model to predict the annual number of refined product oil spills. A univariate model was developed with oil production as an independent variable, but with an R-square of 0.078, only about 8% of the variability in annual spill numbers for refined product was explained by the model. The p-value was 0.185 which is not significant at a 95% confidence level. For these reasons, the model was deemed unusable to predict annual numbers of refined spills. There was no significant relationship between annual number of refined oil spills and any of the independent variables investigated.

The best method to predict the annual number of refined oil spills is the estimate of the mean number of refined oil spills which is 20.6 spill per year with a 95% confidence interval of 17.4 to 23.8. The skewness of the distribution is -0.88 and the kurtosis of the distribution is -0.92, so the distribution is close enough to normal to allow for a mean as an estimate.

## 5.4.2 Occurrence Rates for Annual Volume of Spills by Oil Type

Figure 10 depicts the volume of recorded oil spill by substance type (crude and refined) versus the crude oil production by year. Neither the crude nor the refined spill volume data follows the trend in oil production, nor is the proportion of crude to refined spill volumes consistent over time or production level. In the absence of a valid model to predict the volume of either crude or refined spills, it was considered best to use the median of the annual spill volumes as an estimate. There is no significant linear relationship between oil production and spill volume for either crude or refined oil. So, an estimate of annual spill volume across all years is the best estimate.

The distributions for crude and refined annual oil spill volumes are highly skewed<sup>10</sup>, so the best estimate for annual spill volume by oil type is the median spill volume and the associated 95% percentile interval as presented in Table 17.

**Table 17. Median annual spill volume and 95% Percentile Interval by oil type for North Slope oil spills, 1996–2019**

Oil Type	Median Spill Volume (bbl)	Lower 5% Percentile Interval	Upper 95% Percentile Interval
Crude	205.4	6.0	845.3
Refined	106.9	30.0	436.9

## 6 CONCLUSIONS

### 6.1 Limitations and Challenges of Occurrence Models

The models developed here do not address the causality of the relationships noted between the number of spills and independent variables explored, merely that they were unlikely to have occurred by chance. Therefore, caution should be used when applying statistical models for predictions in dissimilar circumstances. While these occurrence models performed adequately for predicting spill numbers in similar oil fields during a similar timeframe, using them to predict spills in other places or times could lead to predictions outside the confidence intervals due to differences in technology, industry practices, regulation and oversight, or other circumstances.

Factors besides oil production volume contribute to oil spill occurrence rates as well. For example, because some spills are caused by human error, the number of work hours by people employed in the industry could be related to spill occurrence. Spill volume is also a function of the time it takes to detect

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<sup>10</sup> Crude: kurtosis = 21.2 skewness = -0.39  
Refined: kurtosis = 6.0 skewness = 1.01

and stop a leak, which can depend on both technology and operator protocols or decisions. Therefore, advances in technology may have a big effect on volume spilled.

At the same time that using spill data from a specific location is important, it will always be challenging to model oil spill occurrences based on historical spills. Oil spills, especially large ones, are generally rare occurrences so datasets are prone to being small. This is further confounded, as was the case in this study, by changes in reporting requirements and record keeping. Industry practices also change, due to required or voluntary use of best practices, along with new technology. If we assume that the efforts of regulators and industry to reduce the number and size of spills will improve spill prevention over time, occurrence estimation models based on historic spills may over-predict future spills.

## 6.2 Occurrence Estimates for Spill Number

A variety of regression models were applied to explore the most accurate predictive approaches that could be used to estimate the number of spills based on various production variables. In some cases, strong predictive models were identified. In others, simpler estimating methods proved as accurate as regression modeling.

While several predictive models were developed for overall spill occurrence rates, there were challenges when similar approaches were applied to size category subsets. The best model for predicting the annual total number of spills was a linear regression based upon annual volume of oil produced in MMbbl. The model equation was:

$$N_{tot} = -11.66664 + Oil\_Prod. \times 0.12482 + Adj\_Price \times 0.18513$$

Where:  $N_{tot}$  = total annual number of spills for all spill types and classes

$Oil\_Prod.$  = annual volume of crude oil produced from oil wells in million barrels

$Adj\_Price$  = Alaska North Slope crude oil price in US adjusted by Consumer Price Index to 2019

The best model for predicting the annual total number of crude oil spills was a linear regression based upon annual volume of oil produced. The model equation was:

$$N_{crude\_tot} = -5.251565 + Oil\_Prod. \times 0.065857$$

Where:  $N_{crude\_tot}$  = total annual number of crude oil spills

$Oil\_Prod.$  = annual volume of crude oil produced from oil wells in million barrels

## 6.3 Occurrence Estimates for Spill Volume

We attempted to use regression to develop a model to predict total spill volume and spill volume by oil type without success. There is no significant linear relationship between any of the independent variables and the annual volume of oil spilled. So, an alternate approach was used to arrive at estimates of total spill volume using a bootstrap technique to estimate median spill volume for each size class and combined this with a Monte Carlo simulation to generate confidence intervals for the estimate of the number of spills of each class size. The resulting model was:

$$Vol_{tot,y} = Pred\_N_{tot,y} \times Prop\_A \times Med\_A + Pred\_N_{tot,y} \times Prop\_B \times Med\_B + Pred\_N_{tot,y} \times Prop\_C \times Med\_C + Pred\_N_{tot,y} \times Prop\_D \times Med\_D$$

This model predicts an annual spill volume of 526 bbl with a 95% Confidence Interval of 168 to 1,260 bbl at a 250 MMbbl per year level of oil production and an adjusted oil price of \$75.

## 6.4 Recommendations

Occurrence estimates could be improved by using more independent variables, though in order to be useful these need to be variables that can be estimated or planned on for the future. For example, the volume of refined product utilized to construct and operate the oil production infrastructure might be a better predictor of refined oil spill than total oil production itself. It would be interesting to explore the annual number of working hours dedicated to oil exploration, development, and production as an independent variable based on the hypothesis that greater manhours spent in these activities would lead to an increase in spill numbers.

Most crude oil spills are the result of the loss-of-integrity of some portion of the oil production infrastructure. Examining the spill record for an individual facility (e.g. pipeline, tank, or processing plant) and then comparing similar facilities to establish occurrence rates by facility type may provide additional insight into occurrence rates.

Finally, as acknowledged, oil spill rate studies are limited by data quality. Reporting standards change over time and some data on potential independent variables are not recorded.

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## **8 APPENDICES**

### **Appendix A: Collated Oil Spill Dataset**

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1	06/03/71	1071.43	A	Refined: Other	Refined: Other	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -2	01/05/72	476.19	B	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -3	06/10/72	4.76	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -4	04/16/73	101.48	C	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -5	06/14/73	1.43	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -6	07/16/73	952.38	B	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Unknown	Unknown	Unknown	Unknown
NS -7	11/27/74	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -8	06/29/75	52.38	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -9	10/06/75	7.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -10	02/20/76	70.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -11	03/19/76	6.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -12	06/25/77	7.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -13	07/19/77	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -14	07/25/77	4.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -15	08/03/77	3.14	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -16	10/21/77	11.98	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -17	11/10/77	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -18	11/17/77	20.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -19	11/26/77	4.72	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -20	12/04/77	3.77	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -21	01/18/78	2.52	D	Refined: Gasoline	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -22	01/31/78	9.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -23	02/03/78	7.55	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -24	02/19/78	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -25	02/25/78	3.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -26	03/07/78	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -27	03/18/78	4.76	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -28	04/17/78	4.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -29	04/21/78	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -30	04/27/78	9.43	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -32	05/01/78	3.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -31	05/01/78	5.03	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -33	05/15/78	3.14	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -34	06/09/78	1.26	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -35	06/21/78	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -36	06/28/78	15.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -37	07/09/78	6.29	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -38	08/03/78	1.26	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -39	08/05/78	11.90	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -40	08/10/78	6.29	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -41	08/22/78	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -42	11/17/78	1.31	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -43	12/04/78	7.55	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -44	12/05/78	2.52	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -45	01/15/79	8.81	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -46	02/11/79	23.81	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -47	02/14/79	4.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -48	02/23/79	1.57	D	Refined: Diesel Mix	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -49	03/12/79	1.20	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -50	03/25/79	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -51	04/07/79	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -52	04/10/79	3.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -53	04/22/79	1.89	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -54	04/29/79	3.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -55	05/12/79	3.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -56	05/26/79	1.26	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -57	06/28/79	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -58	06/29/79	1.90	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -59	07/04/79	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -60	07/07/79	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -61	07/09/79	1.26	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -62	07/14/79	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -63	07/26/79	1.69	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -64	08/11/79	9.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -65	08/29/79	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -66	09/02/79	1.89	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -67	09/04/79	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -68	09/25/79	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -69	11/09/79	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -70	11/11/79	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -71	01/03/80	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -72	01/04/80	45.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -73	03/20/80	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -74	04/06/80	2.38	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -75	04/29/80	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -76	05/07/80	4.76	D	Crude Oil	Crude Oil	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -78	06/04/80	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -77	06/04/80	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -79	06/05/80	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -80	06/18/80	1.19	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -81	06/19/80	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -82	07/01/80	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -83	08/08/80	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -84	08/22/80	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -85	08/23/80	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -86	09/03/80	20.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -87	10/23/80	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -88	10/31/80	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -89	11/07/80	1.79	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -90	11/11/80	15.00	C	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -91	11/16/80	4.76	D	Refined: Gasoline	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -92	11/21/80	102.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -93	12/06/80	3.57	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -94	12/18/80	6.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -95	12/30/80	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -96	01/12/81	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -97	01/14/81	23.81	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -98	01/19/81	10.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -99	01/20/81	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -100	01/21/81	2.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -101	01/25/81	4.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -102	02/06/81	22.14	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -103	02/18/81	16.67	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -104	02/19/81	1.79	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -105	02/23/81	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -106	03/19/81	4.76	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -107	03/21/81	1.19	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -108	04/03/81	3.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -109	04/09/81	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -110	04/13/81	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -111	04/16/81	1.43	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -112	04/24/81	101.95	C	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -114	04/25/81	2.86	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -113	04/25/81	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -115	04/26/81	14.29	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -116	04/26/81	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -117	04/29/81	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -118	05/01/81	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown

ID	Date	Size (bbbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -119	05/04/81	14.29	C	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -120	05/08/81	2.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -121	05/15/81	1.19	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -122	05/21/81	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -123	05/27/81	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -124	05/30/81	2.98	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -125	05/31/81	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -126	06/07/81	7.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -128	06/08/81	23.81	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -127	06/08/81	71.43	C	Refined: Hydraulic	Refined: Other	Oil Exploration	Oil Exploration	Unknown	Unknown	Unknown	Unknown	Unknown
NS -129	06/10/81	2.12	D	Crude Mixture	Crude Oil	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -130	06/11/81	23.81	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -131	06/21/81	3.57	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -132	06/22/81	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -133	06/25/81	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -134	07/24/81	2.02	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -135	08/04/81	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -136	08/07/81	23.81	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -137	08/09/81	40.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -138	08/10/81	21.43	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -139	08/19/81	1.55	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -140	08/22/81	450.00	B	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -142	09/04/81	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -141	09/04/81	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -143	09/09/81	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -144	10/06/81	59.52	C	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -145	10/26/81	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -146	10/29/81	1.31	D	Refined: Other	Refined: Other	Oil Exploration	Oil Exploration	Unknown	Unknown	Unknown	Unknown	Unknown
NS -148	11/05/81	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -147	11/05/81	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -149	11/13/81	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -150	11/15/81	3.57	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -151	11/25/81	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -152	12/01/81	7.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Unknown	Unknown
NS -153	12/02/81	47.52	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -154	12/06/81	23.81	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -155	12/07/81	1.67	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -156	12/10/81	1.43	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -157	12/19/81	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -158	12/23/81	50.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -159	12/30/81	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -160	01/13/82	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -161	01/20/82	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -162	01/20/82	1.67	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -163	02/13/82	11.90	C	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -164	02/27/82	1.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -165	03/04/82	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -166	03/07/82	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -167	03/08/82	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -168	03/14/82	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -169	03/23/82	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -171	04/02/82	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -170	04/02/82	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -172	04/14/82	3.00	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -173	04/15/82	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -174	04/30/82	60.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -175	05/12/82	42.86	C	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -176	05/14/82	1.79	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -177	05/31/82	4.76	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -178	06/03/82	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -179	06/07/82	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -180	06/17/82	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -181	06/19/82	11.90	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -182	06/22/82	3.10	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -183	06/24/82	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -184	06/26/82	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -185	07/06/82	1.90	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -186	08/09/82	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -187	08/09/82	2.86	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -188	08/13/82	1.19	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -189	08/15/82	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -190	08/20/82	2.86	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -191	08/23/82	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -192	09/27/82	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -193	10/17/82	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -194	10/18/82	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -195	10/26/82	7.14	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -196	10/31/82	200.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -197	11/01/82	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -198	11/04/82	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -199	11/07/82	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -200	11/09/82	25.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -201	11/10/82	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -202	11/15/82	1.79	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -203	11/18/82	4.76	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -204	11/21/82	45.00	C	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -205	11/22/82	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -206	12/03/82	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -207	12/04/82	5.95	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -208	12/12/82	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -209	12/23/82	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -210	12/27/82	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -211	01/27/83	10.00	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -212	01/28/83	62.00	C	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -213	02/09/83	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -214	03/31/83	54.76	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -215	04/24/83	3.57	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -216	05/12/83	23.81	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -217	05/16/83	1.07	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -218	05/17/83	1.31	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -219	05/18/83	1.43	D	Refined: Diesel	Refined: Other	Vehicle	Support Facility/Services	Onshore	Unknown	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -220	05/25/83	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -221	05/29/83	5.95	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -222	06/02/83	2.38	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -223	06/03/83	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -224	06/09/83	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -225	06/12/83	11.90	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -226	06/13/83	47.62	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -227	06/13/83	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -228	06/19/83	114.29	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -229	06/25/83	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -230	06/25/83	5.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -231	07/05/83	11.90	C	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -232	07/08/83	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -233	07/08/83	1.79	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -235	07/10/83	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -234	07/10/83	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -236	07/11/83	5.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -237	07/13/83	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -238	07/28/83	1.79	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -239	08/03/83	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -240	08/16/83	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -241	08/19/83	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -243	08/22/83	1.79	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -242	08/22/83	2.38	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -244	08/25/83	2.38	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -245	08/27/83	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -246	09/06/83	24.00	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -247	09/06/83	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -248	09/23/83	9.52	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -249	09/27/83	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -250	10/19/83	2.38	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -251	10/28/83	7.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -252	11/01/83	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -253	11/01/83	1.55	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -254	11/02/83	15.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -255	11/04/83	23.81	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -256	11/12/83	1.67	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -257	11/15/83	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -258	11/16/83	35.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -259	11/22/83	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -260	11/23/83	3.90	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -261	11/28/83	3.10	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -262	11/29/83	23.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -263	12/05/83	1.19	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -264	12/18/83	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -265	01/03/84	60.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -266	01/03/84	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -267	02/06/84	9.52	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -268	02/11/84	1.50	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -269	02/19/84	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -270	03/04/84	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -271	03/04/84	3.57	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -272	03/12/84	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -273	03/17/84	38.10	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -274	04/08/84	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -275	04/13/84	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -276	05/18/84	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -277	05/24/84	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -278	06/10/84	3.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -279	06/11/84	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -280	06/14/84	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -281	06/18/84	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -282	06/30/84	1.19	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -283	07/03/84	1.19	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -284	07/20/84	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -285	07/26/84	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -286	08/09/84	20.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -287	08/19/84	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -288	09/10/84	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -289	10/09/84	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -290	11/06/84	125.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -291	12/22/84	5.00	D	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -292	01/13/85	2.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -293	01/22/85	2.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -294	01/31/85	2.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -295	02/08/85	1.19	D	Crude Oil	Crude Oil	Vehicle	Support Facility/Services	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -296	02/10/85	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -297	02/11/85	10.48	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -298	02/13/85	2.62	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -299	02/14/85	1.67	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -300	02/16/85	2.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -301	03/02/85	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -302	03/16/85	1.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -303	03/19/85	20.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -304	03/19/85	20.95	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -305	03/22/85	7.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -306	03/30/85	1.05	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Unknown	Unknown
NS -307	04/03/85	10.48	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -308	04/07/85	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -309	04/07/85	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -310	04/08/85	2.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -311	04/09/85	1.05	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Unknown	Unknown
NS -312	04/10/85	2.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -313	04/10/85	27.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -314	04/18/85	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -315	04/22/85	5.24	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -316	04/22/85	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -317	04/22/85	3.81	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -318	04/27/85	9.52	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -320	04/30/85	7.14	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -319	04/30/85	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -321	04/30/85	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -322	05/03/85	5.95	D	Crude Oil	Crude Oil	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -323	05/08/85	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -324	05/11/85	2.86	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -325	05/13/85	5.95	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Pipe or Line	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -326	05/13/85	2.98	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -327	05/18/85	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -328	05/22/85	95.24	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -329	05/25/85	50.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -330	05/31/85	2.38	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -332	06/02/85	238.10	B	Crude Oil	Crude Oil	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -333	06/02/85	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -331	06/02/85	23.81	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -334	06/03/85	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -335	06/05/85	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -336	06/17/85	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -337	06/18/85	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error, Overfill	Human Error: Overfill
NS -338	06/30/85	1.19	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -339	07/02/85	1.43	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -340	07/12/85	20.24	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -341	07/15/85	2.02	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -342	07/17/85	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -343	07/17/85	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -344	07/19/85	1.19	D	Refined: Diesel Mix	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -345	07/22/85	5.95	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -346	07/23/85	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -347	08/01/85	1.07	D	Refined: Gasoline	Refined: Other	Unknown	Unknown	Onshore	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -348	08/08/85	2.38	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -349	08/17/85	2.38	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -350	08/22/85	1.79	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -351	08/24/85	4.76	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -352	08/31/85	5.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Unknown	Unknown
NS -353	09/01/85	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -354	09/02/85	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -355	09/02/85	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -356	09/06/85	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -357	09/15/85	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -358	09/19/85	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -359	09/21/85	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -360	10/03/85	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal



ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -361	10/05/85	2.98	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -362	10/05/85	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -363	10/06/85	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -364	10/06/85	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -365	10/12/85	14.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -366	11/02/85	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -367	11/03/85	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -368	11/06/85	2.98	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -369	11/14/85	250.00	B	Refined: Gasoline	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -370	11/15/85	175.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -371	11/18/85	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -372	11/21/85	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -373	11/24/85	7.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -374	11/25/85	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -375	11/27/85	1.43	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -376	11/29/85	1.31	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -377	12/01/85	1.31	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -378	12/03/85	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -379	12/05/85	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -380	12/06/85	44.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -381	12/11/85	1.19	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -382	12/12/85	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -384	12/15/85	40.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -383	12/15/85	1.31	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -386	12/16/85	1.07	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -385	12/16/85	11.90	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -387	12/22/85	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -388	12/26/85	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -389	12/27/85	4.76	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -390	12/28/85	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -391	12/29/85	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -392	01/02/86	40.21	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -393	01/03/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -394	01/04/86	1.19	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Milne Point	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -395	01/08/86	118.02	C	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -396	01/11/86	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Unknown	Unknown
NS -397	01/13/86	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -398	01/17/86	5.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -399	01/21/86	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error, Overfill	Human Error: Overfill
NS -400	01/23/86	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -401	01/30/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -402	02/02/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -403	02/14/86	7.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -404	02/15/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -405	02/17/86	7.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -406	02/18/86	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -407	02/21/86	7.14	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -408	03/02/86	80.95	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -409	03/02/86	4.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -410	03/10/86	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -411	03/10/86	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -412	03/10/86	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -413	03/12/86	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -414	03/15/86	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -415	03/18/86	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -416	03/20/86	2.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -417	03/27/86	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -418	03/28/86	7.31	D	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -419	04/02/86	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -420	04/05/86	50.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -421	04/07/86	19.05	C	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -422	04/09/86	2.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -423	04/10/86	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -424	04/11/86	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -425	04/20/86	2.55	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -426	04/22/86	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -427	04/23/86	47.62	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -428	04/29/86	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -429	05/01/86	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -430	05/11/86	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -431	05/21/86	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -432	05/25/86	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -433	05/26/86	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -434	05/27/86	5.95	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -435	05/30/86	3.57	D	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -436	05/31/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -437	06/04/86	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -438	06/07/86	2.00	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -439	06/09/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -440	06/10/86	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -441	06/11/86	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -442	06/18/86	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -443	06/20/86	2.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -444	06/27/86	11.90	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -445	06/29/86	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -446	07/06/86	3.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -447	07/06/86	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -448	07/15/86	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -449	07/17/86	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -450	07/24/86	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -451	07/31/86	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -452	08/04/86	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -453	08/09/86	15.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -454	08/10/86	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -455	08/12/86	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -456	08/25/86	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -457	08/31/86	20.00	C	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Onshore	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -458	09/01/86	2.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -459	09/09/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -460	09/15/86	20.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -461	09/25/86	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -462	09/26/86	1.19	D	Refined: Gasoline	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -463	09/29/86	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -464	10/07/86	2.12	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -465	10/16/86	100.00	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -466	10/22/86	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -467	10/22/86	2.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -468	11/04/86	3.00	D	Refined: Oil Drilling Mud	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -469	11/07/86	120.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -470	11/10/86	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -471	11/11/86	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -472	11/23/86	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -473	11/29/86	20.00	C	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -474	12/13/86	55.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -475	12/19/86	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -476	12/21/86	1.50	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -477	12/27/86	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -478	12/28/86	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -479	01/05/87	357.14	B	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -480	01/10/87	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -481	01/13/87	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -482	01/16/87	2.12	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -483	02/02/87	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -484	02/09/87	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -485	02/12/87	5.24	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -486	02/23/87	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -487	02/28/87	2.00	D	Refined: Diesel Mix	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -488	03/04/87	3.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -489	03/06/87	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -490	03/10/87	1.43	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -491	03/25/87	120.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -492	03/31/87	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -493	04/03/87	1.07	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -494	04/24/87	1.79	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -495	04/29/87	4.76	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -496	05/08/87	1.31	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -497	05/11/87	2.00	D	Refined: Diesel Mix	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -498	05/24/87	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -499	06/08/87	2.38	D	Refined: Diesel Mix	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -500	06/14/87	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -501	06/16/87	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -502	06/19/87	2.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -503	06/22/87	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -504	06/22/87	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -505	06/30/87	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -506	07/15/87	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -507	07/17/87	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -508	07/19/87	1.79	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -510	07/20/87	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -509	07/20/87	2.62	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -511	07/22/87	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -512	07/24/87	1.19	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -513	07/25/87	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -514	07/28/87	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -515	07/29/87	20.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -516	08/04/87	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -517	08/04/87	2.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -518	08/07/87	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -519	08/10/87	2.38	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -520	08/16/87	50.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -521	08/24/87	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -522	09/14/87	19.64	C	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -523	09/16/87	2.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -524	09/19/87	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Pipe or Line	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -525	09/19/87	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -526	09/20/87	60.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -527	09/22/87	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -528	09/27/87	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -529	09/28/87	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -530	10/01/87	2.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -531	10/03/87	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -532	10/09/87	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -533	10/10/87	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -534	10/11/87	1.79	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -535	10/13/87	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -536	10/14/87	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -537	10/15/87	6.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -538	10/31/87	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -539	11/08/87	11.90	C	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -540	11/12/87	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -541	11/14/87	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -542	11/25/87	9.52	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -543	11/25/87	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -544	11/26/87	1.90	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -545	12/01/87	7.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -546	12/30/87	9.50	D	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -547	01/20/88	12.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -548	01/21/88	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -549	01/25/88	1.50	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -550	01/30/88	15.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -551	02/05/88	1.19	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -552	02/05/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -553	02/08/88	287.14	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Unknown	Unknown
NS -554	02/12/88	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Pipe or Line	Corrosion	Human Error: Unknown
NS -555	02/14/88	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -556	02/14/88	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -557	02/19/88	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -558	02/27/88	1.07	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -559	02/28/88	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -560	03/06/88	2.62	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -561	03/07/88	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -562	03/17/88	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -563	03/19/88	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -564	03/30/88	281.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Human Error: Unknown
NS -565	04/01/88	2.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -566	04/03/88	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -567	04/04/88	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -568	04/07/88	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -569	04/14/88	5.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Pipe or Line	Unknown	Unknown
NS -570	04/19/88	3.57	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -571	04/22/88	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -572	04/24/88	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -573	05/02/88	20.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -574	05/03/88	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -575	05/07/88	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -576	05/15/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -577	05/16/88	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -578	05/17/88	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -579	05/21/88	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -580	05/23/88	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -581	06/01/88	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -582	06/05/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -583	06/09/88	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -584	06/11/88	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -585	06/12/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -586	06/12/88	7.62	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -587	06/13/88	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -588	06/16/88	1.19	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -589	06/19/88	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -590	06/19/88	7.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -591	06/21/88	3.00	D	Crude Mixture	Crude Oil	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -592	06/23/88	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -593	06/25/88	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -594	06/26/88	3.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -595	06/28/88	1.67	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -596	06/29/88	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -597	07/01/88	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -598	07/02/88	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -599	07/04/88	3.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -600	07/05/88	3.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -601	07/09/88	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -603	07/11/88	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -602	07/11/88	5.95	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -604	07/18/88	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -605	07/20/88	7.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -606	07/23/88	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -607	08/02/88	1.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -608	08/03/88	1.67	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -609	08/06/88	1.07	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -610	08/10/88	30.00	C	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -612	08/16/88	1.07	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -611	08/16/88	50.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -613	08/20/88	2.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -614	08/23/88	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -615	08/29/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -617	09/10/88	30.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -616	09/10/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Unknown	Unknown
NS -618	09/11/88	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -619	09/15/88	7.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -620	09/30/88	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -621	10/01/88	9.52	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -622	10/10/88	2.38	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -623	10/13/88	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -624	10/13/88	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -625	10/15/88	6.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -626	10/17/88	2.17	D	Refined: Gasoline	Refined: Other	Unknown	Unknown	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -627	10/19/88	4.76	D	Refined: Gasoline	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -628	10/20/88	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -630	10/25/88	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -629	10/25/88	1.31	D	Refined: Diesel Mix	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -631	10/26/88	1.67	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -632	10/29/88	71.24	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -633	11/03/88	1.19	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -634	11/04/88	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -636	11/06/88	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -635	11/06/88	1.43	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -637	11/11/88	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -638	11/11/88	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -639	11/12/88	1.79	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -640	11/18/88	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -641	11/22/88	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -642	11/28/88	2.02	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -643	12/01/88	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -644	12/04/88	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -645	12/05/88	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -646	12/05/88	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -647	12/05/88	1.24	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -648	12/09/88	2.38	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -649	12/19/88	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -650	12/22/88	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -652	12/26/88	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -651	12/26/88	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -653	12/29/88	60.00	C	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -654	01/03/89	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -655	01/08/89	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -656	01/18/89	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Unknown	Unknown
NS -657	01/19/89	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -658	01/24/89	154.76	C	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -659	02/04/89	75.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other

ID	Date	Size (bbi)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -660	02/05/89	11.90	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -661	02/06/89	1.19	D	Refined: Other	Refined: Other	Unknown	Unknown	Onshore	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -662	02/07/89	4.76	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -663	02/10/89	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -664	02/12/89	16.67	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -665	02/27/89	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -666	03/04/89	7.14	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -667	03/07/89	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -668	03/08/89	1.43	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -669	03/10/89	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -670	03/12/89	2.38	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -671	03/27/89	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -672	04/18/89	357.14	B	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -673	04/21/89	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -674	04/22/89	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -675	05/01/89	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -676	05/03/89	1.43	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -677	05/04/89	1.07	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -678	05/04/89	14.29	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -679	05/10/89	2.98	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -680	05/13/89	23.81	C	Refined: Gasoline	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -681	05/23/89	2.62	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Unknown	Unknown	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -682	05/27/89	2.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -683	05/29/89	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -684	05/30/89	11.90	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -685	06/02/89	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -686	06/02/89	12.50	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -687	06/05/89	1.62	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -688	06/08/89	4.76	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -689	06/19/89	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -690	06/19/89	29.33	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -691	06/19/89	2.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -692	06/21/89	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -693	06/21/89	4.76	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -694	06/21/89	17.10	C	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -695	06/25/89	1.79	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -696	06/25/89	1.29	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -697	07/02/89	1.50	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -698	07/03/89	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -699	07/05/89	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -700	07/07/89	1.79	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -701	07/08/89	2.02	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -702	07/15/89	7.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -703	07/17/89	7.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -704	07/19/89	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -705	07/28/89	1.19	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -706	07/28/89	925.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -707	07/29/89	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -708	08/22/89	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -709	08/24/89	4.29	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -710	08/25/89	600.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Human Error: Unknown
NS -712	08/26/89	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -711	08/26/89	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -713	09/02/89	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -714	09/07/89	1.43	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -715	09/12/89	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -716	09/24/89	1.67	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -717	10/09/89	25.00	C	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -718	10/11/89	2.00	D	Refined: Oil Drilling Mud	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -719	10/16/89	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -720	11/01/89	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -721	11/06/89	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -722	11/08/89	265.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -723	11/18/89	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Endicott	Unknown	Unknown	Unknown
NS -725	11/24/89	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error, Overfill	Human Error: Overfill
NS -724	11/24/89	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -726	11/24/89	1.07	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -727	11/25/89	50.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -728	12/11/89	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -729	12/15/89	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -731	12/16/89	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -730	12/16/89	26.19	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -732	12/17/89	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -733	12/19/89	15.48	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -734	12/24/89	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -735	01/09/90	1.07	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -736	01/12/90	2.50	D	Crude Oil	Crude Oil	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -737	01/14/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -738	01/19/90	2.38	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -739	01/23/90	1.67	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -740	01/26/90	1.07	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -741	01/30/90	5.95	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -742	02/06/90	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -743	02/07/90	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -744	02/11/90	1.79	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -745	02/15/90	1.31	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -746	02/17/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Unknown	Unknown
NS -747	02/19/90	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -748	02/24/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -749	02/26/90	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -750	03/14/90	15.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -751	03/26/90	1.31	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -752	03/26/90	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -753	03/31/90	1.52	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -754	04/05/90	2.02	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -755	04/15/90	2.86	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -756	5/1/90	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -757	05/11/90	24.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -758	05/12/90	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -759	05/15/90	1.19	D	Crude Oil	Crude Oil	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -760	05/19/90	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -761	05/20/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -762	05/22/90	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -763	05/23/90	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error, Overfill	Human Error: Overfill
NS -764	05/31/90	1.90	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -765	06/03/90	5.71	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -766	06/09/90	1.19	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -767	6/18/90	1.30	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Vehicle	Rollover/Capsize	Other
NS -768	06/22/90	1.19	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -769	06/30/90	3.57	D	Refined: Oil Drilling Mud	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -770	07/03/90	5.71	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -771	07/09/90	1.31	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -772	07/11/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -773	07/12/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -774	07/18/90	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Unknown	Unknown
NS -775	07/20/90	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -776	7/26/90	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Endicott	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -777	07/30/90	1.79	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -778	08/01/90	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -779	08/04/90	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Unknown	Unknown
NS -780	08/06/90	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -781	08/14/90	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Unknown	Unknown	Unknown
NS -782	08/15/90	9.52	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -783	09/02/90	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Unknown	Unknown
NS -784	09/12/90	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -785	09/22/90	30.00	C	Crude Mixture	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -786	09/30/90	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -787	10/01/90	1.31	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -788	10/02/90	1.31	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -789	11/29/90	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -790	11/29/90	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -791	12/01/90	1.07	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -792	12/10/90	600.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -793	12/13/90	13.81	C	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -794	12/22/90	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -795	12/24/90	30.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -796	12/28/90	2.38	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -797	01/19/91	5.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -798	01/21/91	3.57	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -799	02/01/91	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -800	02/04/91	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -801	02/11/91	2.02	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -802	02/20/91	19.05	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -803	02/20/91	3.67	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -804	02/21/91	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -805	03/15/91	2.93	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -806	03/23/91	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -807	03/23/91	1.07	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -808	03/26/91	16.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -809	03/27/91	36.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -810	03/27/91	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -811	04/07/91	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -812	04/08/91	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -813	04/11/91	1.33	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -814	04/13/91	10.60	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -815	04/14/91	1.21	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Unknown	Unknown
NS -816	04/19/91	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -817	04/22/91	3.57	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -818	04/25/91	3.57	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -819	04/30/91	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -820	05/01/91	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -821	05/09/91	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -822	05/13/91	2.98	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -823	05/18/91	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -824	05/19/91	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -825	05/25/91	4.76	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -826	06/10/91	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -827	06/11/91	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -829	06/13/91	9.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Pipe or Line	Corrosion	Human Error: Unknown
NS -828	6/13/91	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -830	06/18/91	2.38	D	Refined: Other	Refined: Other	Unknown	Unknown	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -831	06/23/91	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -833	07/04/91	47.62	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -832	07/04/91	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Unknown	Unknown
NS -834	07/12/91	2.86	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -835	07/14/91	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -836	07/16/91	3.57	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -837	07/16/91	2.50	D	Refined: Other	Refined: Other	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -838	07/18/91	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -839	07/31/91	75.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other



ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -840	08/01/91	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -841	08/25/91	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -842	09/15/91	1.31	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -843	09/16/91	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -844	09/24/91	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -845	09/28/91	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -846	09/28/91	2.65	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -847	09/28/91	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -848	10/08/91	1.19	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -849	10/08/91	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -850	11/03/91	2.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -851	11/19/91	2.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -852	11/25/91	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -853	12/04/91	8.57	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -854	12/15/91	30.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -855	12/19/91	1.29	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -856	01/11/92	3.57	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -857	01/28/92	1.31	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -858	02/01/92	6.67	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -859	02/10/92	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -860	3/24/92	54.80	C	Refined: Gasoline	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Vehicle	Rollover/Capsize	Other
NS -861	04/14/92	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -862	04/20/92	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -863	05/26/92	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -864	05/31/92	5.95	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -865	06/07/92	5.95	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -866	06/24/92	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -867	07/11/92	2.02	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -868	7/15/92	2.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -869	07/30/92	1.07	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -870	08/21/92	2.38	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -871	8/28/92	8.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Human Error	Human Error: Unknown
NS -872	08/29/92	8.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -873	09/11/92	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -874	09/17/92	8.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Human Error	Human Error: Unknown
NS -875	9/26/92	57.10	C	Refined: Unknown	Refined: Other	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Vehicle	Rollover/Capsize	Other
NS -876	10/07/92	1.31	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -877	12/11/92	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -878	02/10/93	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -879	02/21/93	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -880	03/07/93	1.31	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -881	03/31/93	1.31	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -882	04/03/93	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -883	04/05/93	4.88	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -884	04/19/93	11.90	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -885	04/23/93	19.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -886	04/25/93	1.07	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -887	06/07/93	40.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -888	06/10/93	300.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -889	06/12/93	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -890	6/15/93	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -891	06/17/93	50.00	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -892	06/19/93	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -893	06/21/93	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -894	07/09/93	7.14	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -895	07/10/93	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -896	08/17/93	675.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Corrosion	Human Error: Unknown
NS -897	08/30/93	200.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -898	09/03/93	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -899	09/05/93	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -900	9/20/93	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -901	09/20/93	168.00	C	Crude Mixture	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -902	09/26/93	650.12	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -903	10/01/93	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -904	11/13/93	100.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -905	12/14/93	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -906	12/20/93	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -907	12/24/93	200.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -908	12/30/93	400.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -909	01/01/94	5.95	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -910	02/07/94	5.95	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -911	02/16/94	32.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -912	02/22/94	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -913	02/27/94	2.14	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -914	03/18/94	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -915	04/03/94	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -916	04/06/94	3.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -917	05/03/94	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -919	05/10/94	142.86	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -918	5/10/94	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Coiled Tubing	Fire/Explosion	Other
NS -920	05/18/94	3.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -921	06/22/94	6.71	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -922	07/10/94	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -923	07/18/94	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -924	07/23/94	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -925	08/02/94	3.57	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -926	09/26/94	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -927	10/31/94	183.14	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Human Error: Unknown
NS -928	11/06/94	40.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -929	11/06/94	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -930	11/21/94	4.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Other	Human Error, Overfill	Human Error: Overfill
NS -931	12/02/94	2.02	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -933	12/05/94	1.33	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -934	12/05/94	50.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -932	12/5/94	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Well	Other	Other
NS -935	01/01/95	11.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -936	01/02/95	11.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -937	01/07/95	17.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -938	01/16/95	4.76	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -939	02/03/95	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -940	02/05/95	8.33	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -941	02/13/95	5.95	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -942	3/10/95	71.40	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -943	04/04/95	2.38	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -944	5/1/95	2.40	D	Refined: Unknown	Refined: Other	Oil Production	Oil Production	Onshore	Endicott	Vehicle	Dumping	Human Error: Other
NS -945	05/01/95	4.88	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -946	05/07/95	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -947	06/03/95	2.62	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -948	06/07/95	2.38	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -949	7/5/95	1.30	D	Refined: Aviation	Refined: Other	Air Transportation	Support Facility/Services	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -950	7/11/95	2.40	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Unknown	Unknown	Unknown	Unknown
NS -951	07/14/95	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Unknown	Unknown
NS -952	7/26/95	7.10	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -953	07/28/95	20.00	C	Refined: Other	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -954	07/29/95	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -955	08/06/95	6.00	D	Crude Oil	Crude Oil	Unknown	Unknown	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -956	08/13/95	7.14	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Unknown	Unknown
NS -957	08/15/95	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -958	10/05/95	50.00	C	Refined: Oil Drilling Mud	Refined: Other	Unknown	Unknown	Onshore	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -959	10/23/95	1.28	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -960	10/28/95	1.20	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -961	11/26/95	10.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -962	12/18/95	1.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -963	12/22/95	2.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -964	1/2/96	1.20	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -965	01/07/96	42.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -966	1/8/96	1.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -968	01/27/96	8.33	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -967	1/27/96	8.30	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -969	01/31/96	7.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -970	2/6/96	10.70	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -971	2/11/96	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -972	2/20/96	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Tank	Human Error, Overfill	Human Error: Overfill
NS -973	02/25/96	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -974	02/29/96	1.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -975	03/01/96	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -976	3/10/96	7.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -977	03/28/96	200.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -978	4/7/96	7.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Prudhoe Bay	Unknown	External Factors	Other
NS -979	4/17/96	25.60	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Freezing	Mechanical Failure: Other
NS -981	4/24/96	3.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Freezing	Mechanical Failure: Other
NS -982	05/26/96	7.00	D	Crude Oil	Crude Oil	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -983	06/01/96	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Unknown	Unknown
NS -984	6/2/96	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -985	6/7/96	1.40	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -986	6/8/96	5.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -987	6/13/96	1.20	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -988	6/13/96	1.10	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -989	6/17/96	1.10	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -990	6/30/96	26.20	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Puncture	Human Error: Other
NS -991	7/1/96	1.70	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -992	07/06/96	3.00	D	Crude Mixture	Crude Oil	Unknown	Unknown	Onshore	Kuparuk River	Unknown	Corrosion	Human Error: Unknown
NS -993	07/09/96	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -994	07/25/96	9.52	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Endicott	Unknown	Human Error	Human Error: Unknown
NS -995	08/05/96	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -996	8/13/96	1.20	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Hull Failure	Mechanical Failure: Other
NS -997	8/13/96	16.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -998	8/16/96	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Human Error	Human Error: Unknown
NS -999	8/18/96	14.30	C	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1000	8/21/96	2.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Human Error	Human Error: Unknown
NS -1001	09/09/96	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1002	09/11/96	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1003	9/13/96	1.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Erosion	Mechanical Failure: Other
NS -1004	09/27/96	4.88	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1005	10/17/96	1.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1006	10/18/96	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1007	10/26/96	2.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Milne Point	Unknown	Collision/Allision	Human Error: Other
NS -1008	11/22/96	7.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1009	12/20/96	1.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1010	1/16/97	1.30	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Drum(s)	Human Error	Human Error: Unknown
NS -1011	1/23/97	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Erosion	Mechanical Failure: Other
NS -1012	2/3/97	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1013	02/04/97	50.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -1014	2/5/97	1.40	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1015	2/7/97	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1016	2/13/97	2.10	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1017	2/18/97	2.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipr	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1018	02/28/97	2.00	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1019	3/8/97	5.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1020	3/12/97	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Offshore	Endicott	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1021	3/12/97	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1022	3/17/97	2.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Tank	External Factors	Other

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1023	03/26/97	117.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1024	3/31/97	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1025	04/04/97	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1026	04/15/97	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1027	04/27/97	1.79	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -1028	4/30/97	41.20	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1029	5/3/97	2.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1030	5/19/97	180.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1031	5/20/97	1.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1032	06/04/97	4.76	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1033	6/5/97	7.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1034	6/12/97	4.80	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Drum(s)	Corrosion	Mechanical Failure: Corrosion
NS -1035	6/12/97	11.90	C	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Drum(s)	Corrosion	Mechanical Failure: Corrosion
NS -1036	6/22/97	11.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Well	Weld Failure	Mechanical Failure: Other
NS -1038	06/22/97	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1037	6/22/97	47.60	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Heavy Equipment	Rollover/Capsize	Other
NS -1039	06/25/97	1.33	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -1040	7/2/97	3.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Puncture	Human Error: Other
NS -1041	7/3/97	1.40	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1042	7/5/97	3.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1043	7/15/97	47.60	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1044	7/21/97	24.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1045	7/21/97	1.20	D	Refined: Diesel	Refined: Diesel	Air Transportation	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1046	7/28/97	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Unknown	Unknown	Unknown	Unknown
NS -1047	7/29/97	1.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Unknown	Unknown
NS -1048	8/3/97	2.50	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1049	08/04/97	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1051	09/12/97	20.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1050	9/12/97	3.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1052	09/15/97	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Human Error: Unknown
NS -1053	9/27/97	1.20	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Vehicle	Rollover/Capsize	Other
NS -1054	10/13/97	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -1055	10/14/97	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1056	10/26/97	15.70	C	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1057	11/11/97	124.20	C	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Support Services	Tank	Collision/Allision	Human Error: Other
NS -1058	12/8/97	3.20	D	Refined: Aviation	Refined: Other	Vehicle	Support Facility/Services	Onshore	Badami	Vehicle	Cargo Not Secured	Human Error: Other
NS -1059	12/14/97	2.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1060	12/21/97	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Human Error	Human Error: Unknown
NS -1061	01/02/98	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -1062	01/10/98	300.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -1063	1/15/98	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1064	1/26/98	3.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Human Error	Human Error: Unknown
NS -1065	1/27/98	28.60	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1066	1/31/98	1.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1067	3/3/98	4.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1068	03/18/98	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Over Pressure	Mechanical Failure: Overpressure
NS -1069	03/21/98	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -1070	3/23/98	11.90	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1071	3/25/98	14.30	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1072	4/7/98	4.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Unknown	Unknown	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1073	4/8/98	2.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1074	04/13/98	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1075	4/15/98	1.50	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Colville River, Alpi	Heavy Equipment	Rollover/Capsize	Other
NS -1076	04/23/98	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1077	05/01/98	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1078	05/02/98	2.88	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1079	05/17/98	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1080	05/29/98	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1081	06/03/98	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1082	06/12/98	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1083	06/16/98	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1084	7/19/98	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1085	8/2/98	1.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Prudhoe Bay	Coiled Tubing	Unknown	Unknown
NS -1086	8/3/98	6.00	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Unknown	Unknown	Unknown	Unknown
NS -1087	8/21/98	23.80	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Offshore	Endicott	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1088	08/24/98	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Corrosion	Human Error: Unknown
NS -1089	09/25/98	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1090	10/3/98	4.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1092	10/06/98	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1091	10/6/98	2.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1093	10/23/98	3.60	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Tank	Human Error, Overfill	Human Error: Overfill
NS -1094	10/30/98	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -1095	12/09/98	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1096	12/24/98	4.80	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error, Overfill	Human Error: Overfill
NS -1097	01/28/99	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1098	2/6/99	1.20	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Unknown	Unknown	Human Error	Human Error: Unknown
NS -1100	03/12/99	2.45	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Endicott	Unknown	Unknown	Unknown
NS -1101	04/07/99	260.00	B	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1102	4/9/99	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1103	04/18/99	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -1104	05/01/99	1.31	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Badami	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1105	5/4/99	6.00	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Colville River, Alpi	Unknown	Rollover/Capsize	Other
NS -1106	5/19/99	47.60	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1107	06/01/99	1.43	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Endicott	Unknown	Unknown	Unknown
NS -1108	6/6/99	4.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Endicott	Tank	Human Error, Overfill	Human Error: Overfill
NS -1109	6/10/99	30.40	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1110	6/15/99	4.50	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1111	06/17/99	4.76	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1112	6/22/99	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Container, Ot	Human Error, Overfill	Human Error: Overfill
NS -1113	7/3/99	4.80	D	Refined: Hydraulic	Refined: Other	Unknown	Unknown	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1114	07/10/99	1.64	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -1115	07/17/99	100.00	C	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1116	07/23/99	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Corrosion	Human Error: Unknown
NS -1117	07/23/99	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1118	08/12/99	2.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1119	08/15/99	32.14	C	Crude Mixture	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1120	9/6/99	1.50	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1121	09/07/99	1.43	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1122	09/15/99	1.79	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Unknown	Unknown
NS -1123	10/4/99	6.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -1124	10/10/99	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1125	11/10/99	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1126	11/11/99	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1127	11/22/99	5.10	D	Refined: Diesel	Refined: Diesel	Transmission Pipeline	Oil Production	Onshore	Kuparuk River	Pipe or Line	Unknown	Unknown
NS -1128	12/16/99	40.47	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1129	12/22/99	4.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1130	12/23/99	9.05	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Unknown	Unknown
NS -1131	01/25/00	13.09	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1132	1/27/00	1.80	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1133	2/6/00	1.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1134	2/14/00	4.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Badami	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1135	02/14/00	1.07	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -1136	02/16/00	2.98	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Badami	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1137	02/17/00	4.05	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1138	03/02/00	142.86	C	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -1139	03/13/00	4.77	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1140	3/15/00	1.20	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1141	3/20/00	23.80	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1142	4/24/00	11.90	C	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Drum(s)	Cargo Not Secured	Human Error: Other
NS -1143	5/1/00	4.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1144	05/05/00	1.14	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1145	5/6/00	4.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1146	05/19/00	2.62	D	Refined: Other	Refined: Other	Vehicle	Support Facility/Services	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1147	6/8/00	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1148	6/19/00	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1149	6/19/00	1.70	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1150	6/27/00	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Erosion	Mechanical Failure: Other
NS -1151	06/27/00	4.76	D	Refined: Other	Refined: Other	Unknown	Unknown	Onshore	Unknown	Unknown	Unknown	Unknown
NS -1152	07/01/00	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1153	07/07/00	4.17	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Endicott	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1154	7/12/00	15.50	C	Refined: Lube/Gear	Refined: Other	Transmission Pipeline	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1155	07/12/00	2.02	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1156	07/17/00	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1157	08/07/00	12.57	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1158	08/14/00	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1159	8/20/00	2.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1160	08/21/00	715.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1161	9/1/00	2.10	D	Refined: Unknown	Refined: Other	Unknown	Unknown	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -1162	09/06/00	1.19	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1163	9/13/00	1.70	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Vehicle	Cargo Not Secured	Human Error: Other
NS -1164	09/16/00	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -1166	09/26/00	2.38	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Endicott	Unknown	Human Error	Human Error: Unknown
NS -1165	9/26/00	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1167	10/19/00	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1168	12/1/00	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1169	12/1/00	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1170	12/2/00	2.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1171	12/04/00	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1172	12/9/00	2.60	D	Refined: Lube/Gear	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Kuparuk River	Drum(s)	Unknown	Unknown
NS -1173	12/17/00	180.95	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1174	12/24/00	1.10	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Drum(s)	Puncture	Human Error: Other
NS -1175	12/24/00	36.00	C	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1176	12/27/00	1.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1177	1/5/01	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Unknown	Unknown	Unknown
NS -1178	1/12/01	2.40	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1179	1/15/01	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1180	1/21/01	1.10	D	Refined: Lube/Gear	Refined: Other	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Heavy Equipment	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -1181	1/22/01	68.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Human Error	Human Error: Unknown
NS -1182	02/02/01	24.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1183	02/14/01	1.79	D	Refined: Other	Refined: Other	Vehicle	Support Facility/Services	Unknown	Colville River, Alpi	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1184	02/19/01	607.14	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -1185	02/19/01	8.21	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1187	3/6/01	1.50	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Vehicle	Cargo Not Secured	Human Error: Other
NS -1188	03/09/01	2.62	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	North Star	Unknown	Human Error	Human Error: Unknown
NS -1189	3/12/01	2.40	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Unknown	Unknown	Collision/Allision	Human Error: Other
NS -1190	3/20/01	3.00	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -1191	3/29/01	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1192	3/31/01	1.20	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	External Factors	Other
NS -1193	04/01/01	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1194	4/3/01	1.80	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1196	04/15/01	23.80	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Human Error: Unknown
NS -1195	4/15/01	3.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1197	4/23/01	1.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Offshore	Endicott	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1198	4/23/01	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1199	5/4/01	3.60	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	North Star	Unknown	Unknown	Unknown
NS -1200	05/10/01	9.52	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1201	5/11/01	9.50	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1202	5/20/01	3.60	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Vehicle	Cargo Not Secured	Human Error: Other
NS -1203	05/27/01	2.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1204	06/07/01	1.19	D	Crude Oil	Crude Oil	Oil Exploration	Oil Exploration	Unknown	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1205	06/07/01	11.90	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1206	6/11/01	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1207	06/14/01	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1208	06/25/01	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1209	07/04/01	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1210	7/7/01	3.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1211	07/16/01	1.19	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1212	7/21/01	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1213	7/25/01	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Container, Other	Puncture	Human Error: Other
NS -1214	08/10/01	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1215	08/18/01	1.43	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1216	9/6/01	4.00	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1217	9/15/01	35.70	C	Refined: Unknown	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Unknown	Unknown	Unknown
NS -1218	9/25/01	14.30	C	Refined: Aviation	Refined: Other	Air Transportation	Support Facility/Services	Onshore	Colville River, Alpi	Tank	Collision/Allision	Human Error: Other
NS -1219	10/3/01	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1220	10/27/01	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipment	Equipment Failure, Gauge/Site Glass	Mechanical Failure: Other
NS -1221	11/15/01	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Offshore	North Star	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1222	11/20/01	1.19	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -1223	11/22/01	1.43	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1224	11/24/01	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1225	11/28/01	7.10	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1226	11/30/01	2.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Erosion	Mechanical Failure: Other
NS -1227	12/3/01	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Tank	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1228	12/13/01	1.71	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1229	12/15/01	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1230	12/15/01	61.90	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1231	01/02/02	1.31	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	North Star	Unknown	Human Error	Human Error: Unknown
NS -1232	1/3/02	1.30	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Offshore	North Star	Drum(s)	Collision/Allision	Human Error: Other
NS -1233	1/3/02	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	North Star	Other	Unknown	Unknown
NS -1234	01/09/02	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1235	1/14/02	2.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Erosion	Mechanical Failure: Other
NS -1236	2/1/02	2.40	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1237	2/23/02	3.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error, Overfill	Human Error: Overfill
NS -1238	3/1/02	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	North Star	Heavy Equipment	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1239	3/11/02	1.20	D	Refined: Hydraulic	Refined: Other	Oil Exploration	Oil Exploration	Onshore	Exploration	Heavy Equipment	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1240	4/7/02	2.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Erosion	Mechanical Failure: Other
NS -1241	4/15/02	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -1242	5/6/02	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Weld Failure	Mechanical Failure: Other
NS -1243	5/6/02	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1244	5/11/02	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Tank	Human Error	Human Error: Unknown
NS -1245	05/29/02	21.28	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1246	6/11/02	1.70	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1247	7/10/02	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipment	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1248	7/14/02	11.30	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Erosion	Mechanical Failure: Other
NS -1249	7/16/02	8.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic System	Equipment Failure, Gauge/Site Glass	Mechanical Failure: Other
NS -1250	07/18/02	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Pipe or Line	Unknown	Unknown
NS -1251	08/01/02	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1252	8/6/02	17.90	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1253	8/12/02	1.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipment	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1254	8/29/02	23.80	C	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Kuparuk River	Tank	Rollover/Capsize	Other
NS -1255	9/8/02	2.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Gauge/Site Glass	Mechanical Failure: Other
NS -1256	9/14/02	1.30	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1258	10/07/02	1.50	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1257	10/7/02	6.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1259	10/16/02	23.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1260	11/4/02	7.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1261	11/5/02	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipment	Human Error, Overfill	Human Error: Overfill
NS -1262	11/16/02	2.00	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1263	11/25/02	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1264	12/17/02	6.55	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1265	12/24/02	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Badami	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1266	01/20/03	1.91	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1267	2/28/03	85.10	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Fuel Pump	Crack	Mechanical Failure: Other
NS -1268	3/9/03	2.00	D	Refined: Hydraulic	Refined: Other	Oil Exploration	Oil Exploration	Offshore	Exploration	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1269	3/11/03	2.10	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Rollover/Capsize	Other
NS -1270	3/14/03	109.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Badami	Well	Miss-Injection	Human Error: Other
NS -1272	03/22/03	2.38	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1273	03/30/03	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1274	4/13/03	2.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1275	4/24/03	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1276	4/25/03	4.50	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1277	05/11/03	1.47	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1278	5/17/03	1.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Rollover/Capsize	Other
NS -1279	05/25/03	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -1280	5/27/03	142.90	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1281	6/13/03	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1282	6/24/03	4.50	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -1283	6/29/03	1.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1285	7/18/03	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Well	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1286	7/20/03	4.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1287	7/25/03	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1288	8/8/03	3.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Container, Ot	Human Error	Human Error: Unknown
NS -1289	8/12/03	1.20	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Support Services	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1290	8/21/03	1.30	D	Refined: Lube/Gea	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drum(s)	Crack	Mechanical Failure: Other
NS -1291	09/11/03	1.19	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
NS -1292	9/12/03	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -1293	9/24/03	46.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	North Star	Other	Unknown	Unknown
NS -1294	10/7/03	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Well	Miss-Injection	Human Error: Other
NS -1295	11/1/03	3.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Other	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -1296	11/3/03	2.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Tank	Human Error, Overfill	Human Error: Overfill
NS -1297	11/17/03	261.90	B	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Human Error	Human Error: Unknown
NS -1298	11/18/03	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Offshore	North Star	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1299	12/06/03	23.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1300	12/31/03	3.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1301	01/13/04	2.38	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1302	01/14/04	2.86	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1303	1/16/04	1.80	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1304	2/28/04	38.10	C	Refined: Naphtha	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1305	3/17/04	23.80	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1306	3/18/04	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1307	3/26/04	1.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Pipe or Line	Human Error, Overfill	Human Error: Overfill
NS -1308	4/5/04	2.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1309	5/9/04	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -1310	5/12/04	18.20	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1311	05/26/04	1.43	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -1312	5/30/04	2.00	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Well	Unknown	Unknown
NS -1313	06/08/04	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1314	06/18/04	135.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1315	06/23/04	1.19	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1316	6/24/04	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Weld Failure	Mechanical Failure: Other
NS -1317	7/10/04	3.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error, Overfill	Human Error: Overfill
NS -1318	07/14/04	1.10	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1319	07/15/04	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1320	7/19/04	2.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1321	7/30/04	2.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1322	9/20/04	1.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1323	10/2/04	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Endicott	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1324	10/21/04	1.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1325	10/30/04	1.76	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1326	11/20/04	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1327	11/30/04	3.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1328	12/04/04	25.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1329	12/07/04	1.52	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1330	12/23/04	1.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1331	01/09/05	1.31	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown



ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1332	01/16/05	3.06	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1333	1/28/05	1.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1334	2/4/05	1.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Human Error	Human Error: Unknown
NS -1335	02/04/05	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -1336	02/13/05	15.71	C	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1337	02/16/05	2.00	D	Crude Mixture	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1338	2/22/05	2.00	D	Refined: Natural Gas	Refined: Natural Gas	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Crack	Mechanical Failure: Other
NS -1339	03/01/05	1.19	D	Refined: Other	Refined: Other	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -1340	3/12/05	15.50	C	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1341	3/14/05	5.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1342	3/16/05	3.60	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Prudhoe Bay	Heavy Equipment	Human Error, Overfill	Human Error: Overfill
NS -1343	3/19/05	2.00	D	Refined: Natural Gas	Refined: Natural Gas	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Crack	Mechanical Failure: Other
NS -1344	03/26/05	170.66	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Corrosion	Human Error: Unknown
NS -1345	3/30/05	7.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	North Star	Well	Human Error	Human Error: Unknown
NS -1346	4/5/05	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1347	4/12/05	30.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1348	4/19/05	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	North Star	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1349	4/27/05	4.80	D	Refined: Diesel	Refined: Diesel	Air Transportation	Support Facility/Services	Onshore	Support Services	Pipe or Line	Human Error	Human Error: Unknown
NS -1350	05/01/05	1.02	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1351	5/4/05	2.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1352	5/10/05	9.50	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Fuel Pump	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1353	5/22/05	1.80	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -1354	6/3/05	9.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1355	6/3/05	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Weld Failure	Mechanical Failure: Other
NS -1356	06/03/05	21.90	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1357	6/8/05	4.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Corrosion	Mechanical Failure: Corrosion
NS -1358	6/11/05	2.90	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Prudhoe Bay	Fuel Pump	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1359	06/28/05	10.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1360	7/12/05	38.20	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Unknown	Unknown
NS -1361	8/1/05	8.30	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Tank	Puncture	Human Error: Other
NS -1362	08/09/05	2.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Pipe or Line	Corrosion	Human Error: Unknown
NS -1363	8/11/05	3.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Well	Unknown	Unknown
NS -1364	8/31/05	5.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1365	9/2/05	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipment	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1366	9/4/05	1.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1367	9/12/05	5.50	D	Refined: Lube/Gear	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Badami	Unknown	Human Error	Human Error: Unknown
NS -1368	10/02/05	2.38	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1369	10/14/05	3.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Containment Overflow	Human Error: Overfill
NS -1370	10/18/05	1.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1371	10/29/05	10.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	North Star	Well	Unknown	Unknown
NS -1373	11/05/05	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1372	11/5/05	2.00	D	Refined: Natural Gas	Refined: Natural Gas	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1374	11/14/05	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1375	11/29/05	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Corrosion	Mechanical Failure: Corrosion
NS -1376	12/1/05	3.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error	Human Error: Unknown
NS -1377	12/20/05	1.10	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Tank	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -1378	01/09/06	3.57	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1379	1/10/06	3.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipment	Collision/Allision	Human Error: Other
NS -1380	01/11/06	1.91	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1381	1/17/06	8.90	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Other	Cargo Not Secured	Human Error: Other
NS -1382	01/17/06	1.24	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1383	1/18/06	1.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Unknown	Unknown
NS -1384	01/27/06	2.62	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1385	2/6/06	3.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1386	2/9/06	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1387	02/12/06	1.87	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1388	2/26/06	4.30	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	North Star	Tank	Human Error	Human Error: Unknown
NS -1389	3/2/06	5053.60	A	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1390	3/25/06	4.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Human Error	Human Error: Unknown
NS -1392	03/30/06	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -1393	4/4/06	4.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1394	04/08/06	1.91	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1395	04/12/06	7.81	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1396	4/19/06	9.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Well	Unknown	Unknown
NS -1397	05/02/06	5.34	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1398	05/07/06	9.52	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1399	5/9/06	1.20	D	Refined: Hydraulic	Refined: Other	Vehicle	Support Facility/Services	Onshore	Support Services	Heavy Equip	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1400	5/13/06	1.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Fuel Pump	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1401	6/8/06	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error, Overfill	Human Error: Overfill
NS -1402	6/12/06	3.10	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Support Services	Pipe or Line	Equipment Failure, Vehicle	Human Error: Other
NS -1403	06/22/06	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1404	6/23/06	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -1405	7/3/06	2.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1406	7/15/06	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -1407	7/16/06	2.10	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1408	07/20/06	2.86	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1409	8/4/06	3.60	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -1410	8/6/06	120.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1412	08/07/06	4.77	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1411	08/07/06	1.79	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1413	08/19/06	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -1414	8/26/06	3.60	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1415	9/14/06	3.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Tank	Human Error	Human Error: Unknown
NS -1416	9/18/06	15.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Weld Failure	Mechanical Failure: Other
NS -1417	9/24/06	1.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Offshore	Prudhoe Bay	Other	Human Error	Human Error: Unknown
NS -1418	9/28/06	4.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1419	9/29/06	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1420	10/09/06	1.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1421	10/13/06	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1422	10/24/06	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1423	10/31/06	220.00	B	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1424	11/4/06	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1425	11/20/06	7.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error, Overfill	Human Error: Overfill
NS -1426	11/21/06	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1427	12/8/06	1.20	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Support Services	Tank	Rollover/Capsize	Other
NS -1428	12/12/06	1.91	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1429	12/19/06	150.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Weld Failure	Mechanical Failure: Other
NS -1430	1/5/07	4.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Nikaitchuq	Well	Human Error, Overfill	Human Error: Overfill
NS -1432	01/13/07	15.47	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1433	1/29/07	3.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Crack	Mechanical Failure: Other
NS -1434	2/1/07	1.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1435	2/4/07	11.50	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1436	2/6/07	2.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Tank	Containment Overflow	Human Error: Overfill
NS -1437	02/08/07	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1438	2/13/07	4.80	D	Refined: Diesel	Refined: Diesel	Air Transportation	Support Facility/Services	Onshore	Support Services	Tank	Human Error, Overfill	Human Error: Overfill
NS -1439	2/15/07	2.00	D	Refined: Natural G	Refined: Natural	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1440	03/03/07	11.90	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1441	3/5/07	1.40	D	Refined: Hydraulic	Refined: Other	Air Transportation	Support Facility/Services	Onshore	Support Services	Heavy Equip	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1442	3/31/07	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Well	Unknown	Unknown
NS -1443	4/5/07	2.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Corrosion	Mechanical Failure: Corrosion
NS -1444	4/8/07	165.00	C	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Prudhoe Bay	Heavy Equip	Rollover/Capsize	Other
NS -1445	4/9/07	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Container, Ot	Human Error	Human Error: Unknown
NS -1446	4/9/07	3.10	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Milne Point	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1447	04/15/07	80.00	C	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Unknown	Unknown	Unknown	Human Error	Human Error: Unknown
NS -1448	4/19/07	8.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1449	4/24/07	3.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1450	5/3/07	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Fuel Pump	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1451	05/22/07	2.07	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1452	5/23/07	3.50	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Offshore	Endicott	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1453	05/28/07	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1454	6/6/07	7.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1455	6/15/07	3.00	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1456	6/16/07	4.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1457	06/30/07	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1458	8/5/07	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1459	8/8/07	2.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Containment Overflow	Human Error: Overfill
NS -1460	9/5/07	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Oooguruk	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1461	9/10/07	21.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1462	9/10/07	2.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1463	9/29/07	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error, Overfill	Human Error: Overfill
NS -1464	10/19/07	6.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Oooguruk	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1465	10/28/07	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1466	11/2/07	2.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1467	11/3/07	1.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1468	11/16/07	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Oooguruk	Tank	Human Error, Overfill	Human Error: Overfill
NS -1469	11/22/07	10.70	C	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1470	12/7/07	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error	Human Error: Unknown
NS -1471	12/16/07	102.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1472	12/28/07	3.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Drill	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1473	1/21/08	2.00	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1474	1/24/08	2.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1475	2/10/08	1.70	D	Refined: Hydraulic	Refined: Other	Oil Exploration	Oil Exploration	Onshore	Exploration	Hydraulic Sys	Crack	Mechanical Failure: Other
NS -1476	02/10/08	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1477	2/21/08	20.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Tank	Containment Overflow	Human Error: Overfill
NS -1478	2/26/08	12.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1479	02/28/08	5.55	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Endicott	Unknown	Human Error	Human Error: Unknown
NS -1480	3/11/08	3.60	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Crack	Mechanical Failure: Other
NS -1481	03/17/08	50.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Unknown	Unknown
NS -1482	3/29/08	6.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Heavy Equipn	Human Error, Overfill	Human Error: Overfill
NS -1483	4/10/08	3.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1484	04/15/08	1.19	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1485	4/17/08	2.90	D	Refined: Hydraulic	Refined: Other	Oil Exploration	Oil Exploration	Onshore	Exploration	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1486	4/22/08	2.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1487	5/8/08	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1488	05/08/08	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Unknown	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1489	5/9/08	3.20	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1491	05/09/08	3.57	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1490	5/9/08	8.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1492	5/12/08	5.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1493	05/14/08	1.78	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1494	5/17/08	4.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Colville River, Alpi	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1495	05/23/08	5.24	D	Refined: Other	Refined: Other	Support Facility/Services	Support Facility/Services	Unknown	Unknown	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1496	5/26/08	1.10	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1497	5/29/08	2.40	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1498	6/2/08	1.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1499	07/02/08	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Colville River, Alpi	Unknown	Human Error	Human Error: Unknown
NS -1500	7/16/08	20.20	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1501	7/17/08	7.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1502	7/30/08	3.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1503	7/30/08	2.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1504	8/1/08	1.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1505	8/6/08	55.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Human Error	Human Error: Unknown
NS -1506	8/9/08	3.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Weld Failure	Mechanical Failure: Other
NS -1507	9/14/08	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Unknown	Unknown
NS -1508	10/2/08	3.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Over Pressure	Mechanical Failure: Overpressure
NS -1509	10/25/08	2.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error	Human Error: Unknown
NS -1510	11/08/08	4.00	D	Refined: Other	Refined: Other	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1511	11/15/08	2.40	D	Refined: Lube/Gea	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Prudhoe Bay	Container, Ot	Cargo Not Secured	Human Error: Other
NS -1512	12/25/08	452.00	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Pipe or Line	Equipment Failure, Other	Mechanical Failure: Other
NS -1513	12/27/08	2.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Nikaitchuq	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1514	1/7/09	23.80	C	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Tank	Cargo Not Secured	Human Error: Other
NS -1515	1/8/09	6.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Point Thompson	Well	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1516	1/11/09	2.90	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Offshore	North Star	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1517	1/12/09	96.40	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1518	1/14/09	2.30	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Tank	Human Error	Human Error: Unknown
NS -1519	1/14/09	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Drill	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1520	2/7/09	20.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error, Overfill	Human Error: Overfill
NS -1521	2/10/09	1.90	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1522	2/18/09	46.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1523	2/18/09	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1524	2/27/09	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Tank	Human Error	Human Error: Unknown
NS -1525	03/11/09	4.76	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1526	3/15/09	2.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1527	3/16/09	9.50	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1528	3/21/09	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1529	03/22/09	45.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Equipment Failure, Valve/Seal	Mechanical Failure: Valve/Seal
NS -1530	04/09/09	1.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Milne Point	Unknown	Human Error	Human Error: Unknown
NS -1531	4/30/09	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1532	5/13/09	1.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1533	5/25/09	2.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1534	6/24/09	1.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1535	6/26/09	1.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -1536	07/09/09	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1537	7/20/09	10.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Weld Failure	Mechanical Failure: Other
NS -1538	8/25/09	1.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Hydraulic Sys	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1539	8/27/09	2.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Unknown	Unknown	Unknown
NS -1541	11/08/09	2.86	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Corrosion	Human Error: Unknown
NS -1540	11/8/09	4.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1542	11/19/09	1.90	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1543	11/21/09	6.00	D	Refined: Natural G	Refined: Natural	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1544	11/29/09	321.40	B	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Freezing	Mechanical Failure: Other
NS -1545	12/02/09	34.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Pipe or Line	Corrosion	Human Error: Unknown
NS -1546	12/5/09	4.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1547	12/13/09	41.55	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error, Overfill	Human Error: Overfill
NS -1548	12/21/09	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Over Pressure	Mechanical Failure: Overpressure
NS -1549	01/02/10	3.14	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Unknown	Kuparuk River	Unknown	Human Error	Human Error: Unknown
NS -1550	1/13/10	4.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1551	1/20/10	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1552	1/23/10	2.70	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Point Thompson	Drill	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1553	1/27/10	3.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1554	1/30/10	1.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Offshore	Ooguruk	Fuel Pump	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1555	2/9/10	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Tank	Human Error, Overfill	Human Error: Overfill
NS -1556	2/9/10	10.20	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error	Human Error: Unknown
NS -1557	2/11/10	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Endicott	Tank	Corrosion	Mechanical Failure: Corrosion
NS -1558	2/17/10	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Cargo Not Secured	Human Error: Other
NS -1559	2/23/10	2.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Nikaitchuq	Other	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1560	3/5/10	6.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Nikaitchuq	Tank	Crack	Mechanical Failure: Other
NS -1561	3/5/10	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1562	3/7/10	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Endicott	Drill	Human Error	Human Error: Unknown
NS -1563	3/12/10	1.20	D	Refined: Diesel	Refined: Diesel	Unknown	Unknown	Onshore	Nikaitchuq	Unknown	Unknown	Unknown
NS -1564	3/16/10	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Tank Failure	Mechanical Failure: Other
NS -1565	3/19/10	2.40	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Tank	Human Error, Overfill	Human Error: Overfill
NS -1566	3/21/10	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Drill	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1567	3/26/10	7.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1568	4/12/10	3.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Heavy Equipr	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1569	4/17/10	4.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Collision/Allision	Human Error: Other
NS -1570	5/18/10	2.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1571	5/22/10	1.50	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Coiled Tubing	Unknown	Unknown
NS -1572	5/24/10	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1574	6/13/10	3.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Endicott	Heavy Equipr	Rollover/Capsize	Other
NS -1575	6/19/10	1.40	D	Refined: Diesel	Refined: Diesel	Waste Disposal	Support Facility/Services	Onshore	Prudhoe Bay	Heavy Equipr	Human Error	Human Error: Unknown
NS -1576	6/19/10	1.80	D	Refined: Hydraulic	Refined: Other	Waste Disposal	Support Facility/Services	Onshore	Prudhoe Bay	Heavy Equipr	Human Error	Human Error: Unknown
NS -1577	6/20/10	4.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1578	06/21/10	52.07	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1579	6/25/10	3.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error	Human Error: Unknown
NS -1580	7/3/10	3.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error	Human Error: Unknown
NS -1581	7/5/10	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Crack	Mechanical Failure: Other
NS -1582	7/31/10	2.40	D	Refined: Unknown	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error, Overfill	Human Error: Overfill
NS -1583	9/11/10	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Human Error	Human Error: Unknown
NS -1584	9/17/10	1.70	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equip	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1585	9/20/10	1.20	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Tank Failure	Mechanical Failure: Other
NS -1586	9/24/10	1.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1587	11/4/10	1.10	D	Refined: Lube/Gea	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drum(s)	Human Error	Human Error: Unknown
NS -1588	11/11/10	2.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Oooguruk	Heavy Equip	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1589	11/21/10	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Prudhoe Bay	Other	Rollover/Capsize	Other
NS -1590	12/17/10	2.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1591	12/29/10	2.40	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Fuel Pump	Human Error, Overfill	Human Error: Overfill
NS -1592	1/1/11	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Endicott	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1593	1/3/11	4.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1594	1/8/11	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Unknown	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1595	01/23/11	1.19	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Unknown	Unknown	Unknown	Human Error, Vehicle Accidents	Human Error: Unknown
NS -1596	2/9/11	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Nikaitchuq	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1597	4/13/11	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Offshore	North Star	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1598	5/18/11	3.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1599	5/27/11	4.80	D	Refined: Lube/Gea	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drill	Crack	Mechanical Failure: Other
NS -1600	6/25/11	1.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Unknown	Unknown
NS -1601	7/21/11	1.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1603	08/14/11	9.52	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Equipment Failure, Other	Mechanical Failure: Other
NS -1602	8/14/11	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Offshore	Nikaitchuq	Heavy Equip	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1604	08/16/11	4.53	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Unknown	Prudhoe Bay	Unknown	Human Error	Human Error: Unknown
NS -1605	9/5/11	11.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error, Overfill	Human Error: Overfill
NS -1606	10/14/11	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1607	12/23/11	1.10	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Unknown	Tank	Rollover/Capsize	Other
NS -1608	12/29/11	3.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1609	1/5/12	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Nikaitchuq	Heavy Equip	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1610	1/13/12	2.60	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Human Error	Human Error: Unknown
NS -1611	2/6/12	26.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Badami	Pipe or Line	Human Error	Human Error: Unknown
NS -1612	2/28/12	2.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1613	3/11/12	2.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Fuel Pump	Human Error, Overfill	Human Error: Overfill
NS -1614	3/31/12	2.30	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drum(s)	Human Error	Human Error: Unknown
NS -1615	4/1/12	1.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Nikaitchuq	Heavy Equip	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1616	4/10/12	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1617	4/13/12	3.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equip	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1618	5/10/12	1.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Other	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1619	5/21/12	100.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Containment Overflow	Human Error: Overfill
NS -1620	5/22/12	7.10	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1621	6/21/12	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equip	Equipment Failure, Vehicle	Human Error: Other
NS -1622	7/5/12	2.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1623	7/20/12	8.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1624	7/30/12	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1625	7/31/12	1.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Unknown	Unknown
NS -1626	8/3/12	1.50	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1627	8/6/12	2.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error, Overfill	Human Error: Overfill
NS -1628	8/8/12	2.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Human Error	Human Error: Unknown
NS -1629	8/14/12	1.30	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Cargo Not Secured	Human Error: Other
NS -1630	8/19/12	3.60	D	Refined: Turbine oil	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error	Human Error: Unknown
NS -1631	8/24/12	1.20	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equip	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1632	9/1/12	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Milne Point	Hydraulic Sys	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1633	9/8/12	2.90	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1634	9/8/12	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -1635	9/12/12	4.90	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Human Error	Human Error: Unknown
NS -1636	9/15/12	2.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1637	9/16/12	1.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1639	11/4/12	12.00	C	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Human Error, Overfill	Human Error: Overfill
NS -1640	11/23/12	2.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1641	12/7/12	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1642	12/15/12	4.80	D	Refined: Aviation	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Human Error, Overfill	Human Error: Overfill
NS -1643	1/3/13	14.30	C	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drill	Crack	Mechanical Failure: Other
NS -1644	1/12/13	2.40	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Fuel Pump	Human Error, Overfill	Human Error: Overfill
NS -1645	2/19/13	3.70	D	Refined: Natural Gas	Refined: Natural	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1646	4/3/13	1.20	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Other	Unknown	Unknown
NS -1647	4/5/13	2.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -1648	4/8/13	14.90	C	Crude Oil	Crude Oil	Oil Exploration	Oil Exploration	Onshore	Exploration	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1649	4/19/13	2.00	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1650	4/24/13	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Oooguruk	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1651	5/15/13	1.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Equipment Failure, Vehicle	Human Error: Other
NS -1652	5/19/13	6.30	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Fuel Pump	Human Error	Human Error: Unknown
NS -1653	5/22/13	11.90	C	Refined: Lube/Gear	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Tank Failure	Mechanical Failure: Other
NS -1654	6/10/13	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Drum(s)	Cargo Not Secured	Human Error: Other
NS -1655	6/28/13	6.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1656	7/2/13	1.70	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1657	7/6/13	4.30	D	Refined: Diesel	Refined: Diesel	Vehicle	Support Facility/Services	Onshore	Support Services	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1658	7/19/13	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1659	8/1/13	2.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error	Human Error: Unknown
NS -1660	8/6/13	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Oooguruk	Tank	Human Error	Human Error: Unknown
NS -1661	8/6/13	3.70	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Oooguruk	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1662	8/17/13	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -1663	8/18/13	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Offshore	Nikaitchuq	Tank	Human Error	Human Error: Unknown
NS -1664	8/19/13	1.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1665	9/24/13	166.00	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Unknown	Unknown
NS -1666	10/9/13	3.60	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1667	11/9/13	3.60	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1668	11/22/13	9.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Nikaitchuq	Container, Ot	Equipment Failure, Other	Mechanical Failure: Other
NS -1669	12/12/13	6.50	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1670	12/20/13	71.40	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Tank	Human Error, Overfill	Human Error: Overfill
NS -1671	1/5/14	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Human Error	Human Error: Unknown
NS -1672	1/6/14	43.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Well	Corrosion	Mechanical Failure: Corrosion
NS -1673	1/8/14	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error	Human Error: Unknown
NS -1674	1/15/14	1.20	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Other	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1675	2/10/14	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Unknown	Unknown
NS -1676	2/20/14	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1677	2/27/14	5.10	D	Refined: Diesel	Refined: Diesel	Bulk Fuel Terminal	Support Facility/Services	Onshore	Support Services	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1678	2/28/14	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1679	3/19/14	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Point Thompson	Container, Ot	Crack	Mechanical Failure: Other
NS -1680	4/6/14	4.80	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Equipment Failure, Tank Failure	Mechanical Failure: Other
NS -1681	5/11/14	3.60	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1682	5/31/14	2.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Kuparuk River	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1683	6/2/14	4.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	External Factors	Other
NS -1684	6/24/14	6.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1685	6/25/14	7.80	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipn	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1686	7/16/14	2.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Unknown	Unknown
NS -1687	8/29/14	6.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1688	9/1/14	7.50	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Colville River, Alpi	Drum(s)	Human Error	Human Error: Unknown
NS -1689	9/10/14	2.40	D	Refined: Lube/Gear	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1690	10/5/14	3.60	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Equipment Failure, Gauge/Site Gl	Mechanical Failure: Other
NS -1691	11/6/14	1.20	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1692	12/4/14	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipn	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1693	1/24/15	3.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Point Thompson	Tank	Human Error, Overfill	Human Error: Overfill
NS -1694	1/26/15	1.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Unknown	Unknown
NS -1695	2/4/15	2.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1696	2/16/15	3.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Point Thompson	Unknown	Unknown	Unknown
NS -1697	2/18/15	3.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Drum(s)	Human Error, Overfill	Human Error: Overfill
NS -1698	2/28/15	117.60	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Corrosion	Mechanical Failure: Corrosion
NS -1699	3/2/15	1.80	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1700	3/5/15	2.40	D	Refined: Diesel	Refined: Diesel	Oil Exploration	Oil Exploration	Onshore	Exploration	Fuel Pump	Equipment Failure, Valve Failure	Mechanical Failure: Valve/Seal
NS -1701	3/10/15	3.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Human Error, Overfill	Human Error: Overfill

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1702	4/5/15	1.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Nikaitchuq	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1703	4/26/15	4.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1704	5/15/15	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Other	Human Error	Human Error: Unknown
NS -1705	6/18/15	2.40	D	Refined: Unknown	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Container, Ot	Human Error	Human Error: Unknown
NS -1706	6/26/15	9.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Human Error	Human Error: Unknown
NS -1707	6/26/15	3.20	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1708	8/21/15	9.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1709	9/24/15	4.80	D	Refined: Lube/Gea	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Container, Ot	Human Error	Human Error: Unknown
NS -1710	10/3/15	1.50	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Tank	Unknown	Unknown
NS -1711	11/16/15	1.70	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1712	12/2/15	115.80	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1713	12/8/15	2.40	D	Refined: Hydraulic	Refined: Other	Oil Exploration	Oil Exploration	Onshore	Exploration	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1714	12/8/15	1.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Ooguruk	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1715	2/7/16	6.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Point Thompson	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1716	3/29/16	1.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Point Thompson	Other	Unknown	Unknown
NS -1717	4/11/16	3.60	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Point Thompson	Heavy Equipr	Unknown	Unknown
NS -1719	5/9/16	1.10	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Unknown	Unknown
NS -1720	5/30/16	3.60	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Seal Failure	Mechanical Failure: Valve/Seal
NS -1721	6/12/16	20.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Human Error	Human Error: Unknown
NS -1722	8/7/16	1.60	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1723	9/18/16	2.50	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Point Thompson	Drum(s)	Human Error	Human Error: Unknown
NS -1724	10/23/16	2.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1725	11/14/16	1.80	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1726	11/30/16	2.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Nikaitchuq	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1727	12/10/16	2.50	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1728	1/3/17	2.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Other	Unknown	Unknown
NS -1729	3/9/17	1.40	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1730	3/22/17	1.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1731	3/30/17	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1732	4/14/17	5.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1733	4/22/17	1.40	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Kuparuk River	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1734	4/23/17	2.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1735	6/2/17	1.70	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Hydraulic Sys	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1736	6/17/17	100.00	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Ooguruk	Well	Unknown	Unknown
NS -1737	6/26/17	2.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Well	Unknown	Unknown
NS -1738	6/29/17	1.30	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Ooguruk	Unknown	Human Error	Human Error: Unknown
NS -1739	7/9/17	1.10	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drum(s)	Human Error	Human Error: Unknown
NS -1740	7/30/17	3.90	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Kuparuk River	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1741	7/31/17	1.30	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Unknown	Unknown
NS -1742	8/22/17	1.20	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Unknown	Unknown	Unknown
NS -1743	8/24/17	1.20	D	Refined: Diesel	Refined: Diesel	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Drill	Unknown	Unknown
NS -1744	10/8/17	2.10	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1745	11/24/17	10.00	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1746	12/28/17	1.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Point Thompson	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1747	3/3/18	1.20	D	Refined: Hydraulic	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1748	7/3/18	2.40	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1749	7/23/18	1.10	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Human Error	Human Error: Unknown
NS -1750	8/4/18	11.90	C	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Unknown	Human Error	Human Error: Unknown
NS -1751	8/20/18	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Nikaitchuq	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1752	9/3/18	12.10	C	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1753	9/8/18	8.00	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Endicott	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1754	10/9/18	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Milne Point	Heavy Equipr	Human Error	Human Error: Unknown
NS -1755	11/4/18	2.50	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Well	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1756	11/8/18	1.20	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Endicott	Pipe or Line	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1757	12/11/18	1.50	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1758	12/15/18	2.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1759	12/23/18	4.80	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1760	1/30/19	1.30	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipr	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1761	3/20/19	1.90	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Kuparuk River	Drill	Equipment Failure, Unknown	Mechanical Failure: Unknown
NS -1762	4/14/19	7.90	D	Refined: Lube/Gea	Refined: Other	Support Facility/Services	Support Facility/Services	Onshore	Support Services	Tank	Unknown	Unknown
NS -1763	4/17/19	5.00	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Badami	Tank	Equipment Failure, Unknown	Mechanical Failure: Unknown

ID	Date	Size (bbl)	Size Class	Substance	Consolidated Substance	Facility Type	Consolidated Facility Type	Location	Oil Field / Infrastructure	Source	Cause	Consolidated Cause
NS -1764	5/20/19	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipm	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1765	5/27/19	1.90	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Kuparuk River	Heavy Equipm	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1766	5/28/19	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Milne Point	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1767	6/10/19	2.40	D	Crude Oil	Crude Oil	Oil Production	Oil Production	Onshore	Prudhoe Bay	Pipe or Line	Equipment Failure, Line Failure	Mechanical Failure: Other
NS -1768	7/22/19	1.50	D	Refined: Lube/Gea	Refined: Other	Oil Production	Oil Production	Onshore	Prudhoe Bay	Other	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1769	8/15/19	2.40	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Colville River, Alpi	Heavy Equipm	Human Error	Human Error: Unknown
NS -1770	9/18/19	1.10	D	Refined: Hydraulic	Refined: Other	Oil Production	Oil Production	Onshore	Endicott	Heavy Equipm	Equipment Failure, Unknown	Mechanical Failure: Unknow
NS -1771	11/10/19	7.60	D	Refined: Diesel	Refined: Diesel	Oil Production	Oil Production	Onshore	Prudhoe Bay	Unknown	Equipment Failure, Unknown	Mechanical Failure: Unknow



## Appendix B: Exposure Variable Datasets

Table B-1. Adjusted Alaska North Slope crude oil pricing, 1996–2019

Years	Price (millions of dollars)	Adjusted Price (millions of dollars)
1996	15.3341667	25.2046933
1997	14.7825	23.7598552
1998	8.45	13.3809404
1999	12.6283333	19.5068096
2000	23.6733333	35.4538201
2001	18.1841667	26.5014464
2002	19.3733333	27.764764
2003	23.77	33.341524
2004	33.1366667	45.2175597
2005	47.3116667	62.4392979
2006	56.9691667	72.8873095
2007	63.7991667	79.232205
2008	91.235	108.957409
2009	54.8366667	65.8183551
2010	72.1683333	85.3736891
2011	98.4725	112.942437
2012	98.345	110.527222
2013	95.8433333	106.124652
2014	86.4525	94.1685876
2015	41.3433333	44.9985385
2016	33.2575	35.710172
2017	44.9358333	42.7021524
2018	62.575	60.9194094
2019	57.27	56.7592687

**Table B-2. North Slope gas production per year, 1949–2019**

Years	Oil (bbl)	Gas (mcf)	Water (bbl)	Years	Oil (bbl)	Gas (mcf)	Water (bbl)
1949	-	32,833	-	1985	-	1,310,297	-
1950	-	90,790	-	1986	-	1,177,901	275
1951	-	135,350	-	1987	-	1,211,948	1,030
1952	-	136,545	-	1988	-	1,259,868	514
1953	-	74,669	-	1989	-	1,232,346	446
1954	-	27,129	-	1990	-	1,220,393	198
1955	-	114,950	-	1991	-	1,244,400	72
1956	-	103,462	-	1992	-	1,318,822	41
1957	-	114,104	-	1993	-	1,285,809	34
1958	-	118,555	-	1994	-	1,341,613	17
1959	-	131,624	-	1995	-	1,259,915	-
1960	-	172,426	-	1996	-	1,276,032	-
1961	-	172,437	-	1997	-	1,280,850	-
1962	-	196,734	-	1998	-	1,335,818	-
1963	-	210,746	-	1999	-	1,458,807	-
1964	-	248,953	-	2000	-	1,479,043	-
1965	-	388,844	-	2001	-	1,475,473	-
1966	-	437,513	-	2002	-	1,404,477	-
1967	-	475,384	-	2003	-	1,416,809	-
1968	-	503,725	-	2004	-	1,415,209	-
1969	-	581,564	-	2005	-	1,387,270	-
1970	-	618,616	-	2006	-	1,363,324	-
1971	-	626,703	-	2007	-	1,333,417	-
1972	-	674,871	-	2008	-	1,480,411	-
1973	-	706,549	-	2009	-	1,649,758	-
1974	-	764,919	-	2010	-	1,640,418	-
1975	-	798,739	-	2011	-	1,576,449	-
1976	-	831,824	-	2012	-	1,582,482	-
1977	-	878,652	-	2013	-	1,574,458	89,360
1978	-	892,844	-	2014	-	1,526,813	-
1979	-	913,234	-	2015	-	1,603,970	-
1980	-	1,027,416	-	2016	-	1,543,550	-
1981	-	1,045,175	-	2017	-	1,526,456	-
1982	-	1,249,314	-	2018	-	1,526,835	-
1983	-	1,230,757	121	2019	-	1,517,881	-
1984	-	1,343,143	-		-	-	-

**Table B-3. North Slope oil production per year, 1969–2019**

<b>Years</b>	<b>Oil (bbl)</b>	<b>Gas (mcf)</b>	<b>Water (bbl)</b>	<b>Years</b>	<b>Oil (bbl)</b>	<b>Gas (mcf)</b>	<b>Water (bbl)</b>
<b>1969</b>	277,377	242,956	78	<b>1995</b>	526,139,108	3,099,499,702	645,287,060
<b>1970</b>	1,199,414	1,038,765	2,006	<b>1996</b>	496,180,530	3,124,942,897	689,072,894
<b>1971</b>	1,156,812	888,907	339	<b>1997</b>	460,813,742	3,159,076,227	738,235,786
<b>1972</b>	922,147	657,936	-	<b>1998</b>	417,430,819	3,170,126,141	741,524,812
<b>1973</b>	943,698	699,460	-	<b>1999</b>	372,281,029	3,158,607,989	757,375,709
<b>1974</b>	2,169,876	2,022,246	246	<b>2000</b>	344,430,756	3,332,891,525	792,305,217
<b>1975</b>	2,869,559	3,046,347	429	<b>2001</b>	343,215,581	3,214,049,746	771,033,044
<b>1976</b>	4,604,449	5,076,913	1,550	<b>2002</b>	348,098,030	3,285,295,368	763,746,445
<b>1977</b>	115,257,880	94,935,524	2,428	<b>2003</b>	345,523,860	3,386,780,395	751,756,196
<b>1978</b>	397,678,542	307,965,694	1,326,005	<b>2004</b>	324,232,567	3,453,144,948	803,128,352
<b>1979</b>	468,412,351	432,474,776	8,098,013	<b>2005</b>	308,312,287	3,450,029,960	844,620,768
<b>1980</b>	555,394,181	597,147,564	13,819,549	<b>2006</b>	264,251,712	3,025,236,892	679,669,931
<b>1981</b>	556,264,022	648,385,506	14,638,092	<b>2007</b>	258,108,180	3,328,620,570	727,220,661
<b>1982</b>	591,502,613	780,246,482	15,320,634	<b>2008</b>	245,123,709	3,279,208,278	743,302,469
<b>1983</b>	600,805,736	863,544,092	40,165,852	<b>2009</b>	232,769,321	3,189,218,306	716,729,409
<b>1984</b>	608,453,818	904,485,106	59,080,400	<b>2010</b>	215,164,848	3,084,236,471	723,801,075
<b>1985</b>	649,612,731	1,043,180,924	86,748,162	<b>2011</b>	200,943,614	3,064,921,462	733,910,003
<b>1986</b>	664,051,772	1,095,803,371	141,007,476	<b>2012</b>	188,377,341	3,070,876,205	736,205,861
<b>1987</b>	699,527,264	1,426,769,917	242,591,979	<b>2013</b>	182,588,922	3,135,735,626	709,240,785
<b>1988</b>	722,839,521	1,654,378,949	309,835,913	<b>2014</b>	174,884,868	3,074,701,881	742,919,506
<b>1989</b>	669,258,145	1,667,525,750	357,149,099	<b>2015</b>	169,700,572	3,088,020,734	729,282,906
<b>1990</b>	636,366,508	1,752,257,239	418,446,005	<b>2016</b>	173,748,550	3,155,297,804	743,118,815
<b>1991</b>	641,048,345	2,082,756,966	488,770,878	<b>2017</b>	175,306,790	3,175,841,114	812,139,603
<b>1992</b>	612,162,058	2,329,690,170	574,852,036	<b>2018</b>	169,193,155	3,187,848,417	809,120,516
<b>1993</b>	564,092,990	2,499,503,190	621,797,239	<b>2019</b>	164,736,384	3,187,394,750	838,479,323
<b>1994</b>	553,402,838	2,790,256,928	612,803,268				



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