

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2688087 JIV report S/N: 0524

(Note: as practicable as possible the JIV report is to be signed in the field by all the participating parties)

## A. GENERAL INFORMATION:

1. Fountain Incident Number: 2688087 2. Type of incident\* OIL SPILL  
3. Name of Location 14" OKORDIA - KUMUEKPE (TRUNKLINE) PIPELINE  
4. Name of nearest community IDU - EKPEYE 5. State: RIVERS 6. LGA ATHODA WEST  
7. Production Facility/Installation OIL PIPELINE  
8. Asset Owner/Hub THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 17<sup>th</sup> JULY 2020  
b. Start date/time of Investigation: 18<sup>th</sup> JULY 2020  
c. Investigation End date: 18<sup>th</sup> JULY 2020 Day(s) on site: ONE DAY  
d. Description of spill point environment  
 Firm soil  Loose soil  Recently excavated area  
 Under water  Swampy  Exposed pipe surface  
 Well Platform (on water)  Drill Rig  Sand bag(s)

Additional observations around the spill point:

NOT APPLICABLE

## e. Description of leak point (tick as applicable):

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Smooth round-edge hole                                | <input type="checkbox"/> Rough-edge hole      | <input type="checkbox"/> Hack saw cut                                      |
| <input type="checkbox"/> Complete Rupture                                      | <input type="checkbox"/> Inward dent,         | <input type="checkbox"/> Well head tampering                               |
| <input checked="" type="checkbox"/> Failed Weld-on illegal hot tap valve       | <input type="checkbox"/> Failed Clamp,        | <input type="checkbox"/> Missing Pipeline Flowline                         |
| <input checked="" type="checkbox"/> Crude oil theft (illegal bunkering) point, | <input type="checkbox"/> Saver-pit over flow  | <input type="checkbox"/> Third party tampering with Clamp                  |
| <input type="checkbox"/> Third party tampering with valve setting              | <input type="checkbox"/> Bulging Outward      | <input type="checkbox"/> Third party tampering with flange                 |
| <input type="checkbox"/> Flare System/Bund wall failure                        | <input type="checkbox"/> Cold vent            | <input type="checkbox"/> Surge vessel overflow                             |
| <input type="checkbox"/> Valve Failure   | <input type="checkbox"/> Relief valve failure | <input type="checkbox"/> Accidental 3 <sup>rd</sup> party equipment impact |
| <input type="checkbox"/> Tear (_____)  |   |  |
| <input type="checkbox"/> Others (specify) _____                                |   |  |

## f. Incident caused by:

- Third party interference (Sabotage ; crude theft ; Line theft ; Accidental 3<sup>rd</sup> party damage   
 Operational  Others (including Mystery spills) \_\_\_\_\_

\*This can be: (a) Oil Spill (b) Drilling fluid/Chemical (c) Slit/tear (d) Water Leak (e) Fire (f) Non-leaking well point removal

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g. Spill Point Coordinates (\*Incidents  $\leq 100m$  apart to be aggregated into one Joint Investigation Report)

h. Measuring unit

**WGS 84**

Northing:	Easting:
5.095866	6.523132

## C. RISK ASSESSMENT

### 10. Details of Environment

i. Type of environment where spill occurred (select one):

- Land       Swamp       Water       Seasonal swamp       Shoreline/Waterfront

ii. Type of environment to which oil has spread:

- Land       Swamp       Waterbody (specify) \_\_\_\_\_

iii. Weather condition

- Dry       Wet       Windy       Hot

### 11. Distance to Sensitive habitat within 100m radius

- |   |   |     |   |                                  |
|---|---|-----|---|----------------------------------|
| <input type="checkbox"/> Government reserved and designated protected area                    | [ | ,m] | } | NONE SEEN<br>WITHIN<br>VICINITY. |
| <input type="checkbox"/> Drinking water source  | [ | ,m] |   |                                  |
| <input type="checkbox"/> Surface water <input type="checkbox"/> Borehole                      | [ | ,m] |   |                                  |
| <input type="checkbox"/> Built up Area  | [ | ,m] |   |                                  |
| <input type="checkbox"/> Residential Area <input type="checkbox"/> Commercial/Industrial Area | [ | ,m] |   |                                  |
| <input type="checkbox"/> Farmlands  | [ | ,m] |   |                                  |
| <input type="checkbox"/> Fish Farm/Pond   | [ | ,m] |   |                                  |
| <input type="checkbox"/> Fishing net  | [ | ,m] |   |                                  |
| <input type="checkbox"/> Others (specify) _____   | [ | ,m] |   |                                  |

### 12. Containment measures put in place:

- Booms     Trench     Dyke     Pit     Natural depression     None

Others: \_\_\_\_\_

13. Any pictures or video coverage?

[Y  [N]

14. Further response/repair initiated as at the time of JIV?

[Y  [N]

If yes to item 14, give brief description:

RECOVERY OF FREE PHASE OIL WAS ONGOING WHILE REPAIR ON AFFECTED PIPELINE SECTION WAS DONE BY CLAMPING.

15. Was there any disruption to the investigation? [Y] [N]

If yes to item 15 give brief description:

NOT APPLICABLE

16. Was JIV delayed? [Y] [N]

Reason(s):

- Delayed Community Access Approval  Security Challenges  Access constraint due to terrain  
 Others (specify) \_\_\_\_\_

D. TYPE/NUMBERS OF PROPERTIES, IF ANY, FOUND WITHIN THE AREA OF SPREAD OF OIL

17. Structures / Properties

S/N	Type of Structures	Description	Size	Number	Comments
<u>NONE WITHIN AREA OF IMPACT</u>					

18. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
<u>NONE WITHIN AREA OF IMPACT</u>						

19. Fish/Nets/Ponds

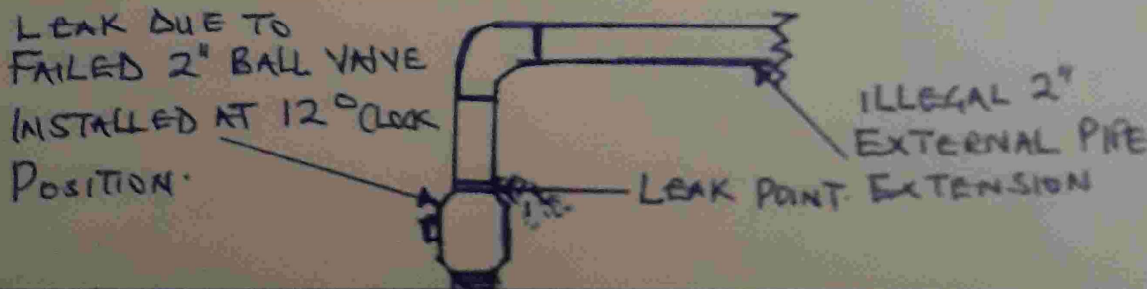
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

20. Others (Specify) e.g. Animal Traps

S/N	Others	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

E. GRAPHIC DESCRIPTION OF LEAK POINT *(while detailed description of the leak point should be contained in the leak report, overview sketch of the site should be added as appendix 1)*

SECTIONAL VIEW OF 14" OKORDIA - RUMUEKPE (TRUNKLINE) PIPELINE AT IDU EKPEYE SHOWING FAILED 2" BALL VALVE FITTINGS INSTALLED AT 12 O'CLOCK POSITION.



14"  
TL

14"  
TL

OKORDIA - RUMUEKPE PIPELINE

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TABLE NUMBER: NONE OF COORDINATES TAKEN DURING JIV FOR AREA CALCULATION

Reported area boundary coordinates (if any) from and attach to W95 84

S/N	Northing	Easting
	5.095876	6.523213
	5.095459	6.522985
	5.095496	6.522842
	5.095394	6.522753
	5.095372	6.522642
	5.095273	6.522547
	5.095324	6.522531
	5.095493	6.522708
	5.095625	6.522860
	5.095607	6.522999
	5.095865	6.523037
	5.096080	6.522736
	5.096107	6.522740
	5.095917	6.523077

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## C. INCIDENT INFORMATION:

### a. Impacted Area Details\*

- Total calculated area of impact (Ha) 0.13
- Impact within SPEC R.O.W. 0.13
- Impact outside SPEC R.O.W. 0.13

\* Round off to 2 decimal places if area is  $\geq 100$  m<sup>2</sup> or to 1 decimal places if area is  $< 100$  m<sup>2</sup> (e.g. 14.55, 0.0051, 0.0005)

\* Express in Hectares (Ha)

### b. Volume of oil recovered before completion of JIV (V<sub>recovered</sub>)

Recovered oil V<sub>recovered</sub> NIL Barrels

Controlled recovery/detention from source with no impact to environment:

NIL Barrels

### c. Net Estimated Spilled Volume V<sub>net/Spill</sub>\*\*

9.89 Barrels

Estimated Reported Volume\*\*\* V<sub>net/Spill</sub> 10 Barrels

\*\*Note:

- \* Volume estimation was done using an excel based tool, see attached for details on the calculations
- \*\* Reported spilled volume is an estimate

\*\*\*Other volumes may also be taken into consideration for volume estimation or cause of spill

NOT APPLICABLE

Calculation of the respective estimated volume is to be done on site as far as practicable using the new spill volume estimation software on site. Conversion of m<sup>3</sup> to barrels is 1 barrel (m<sup>3</sup>) = 6.29. \*\*\*Round up estimated volume to next whole number using the following rules:

- Any spill volume or result of  $> 1$  bbl is rounded up to the next whole number
- Any spill volume or result of  $< 1$  bbl is rounded up to the next 0.1 bbl

Examples: Calculated volume = 10.3 bbl — Reported volume = 11 bbl  
Calculated volume = 0.32 bbl — Reported volume = 0.4 bbl  
Calculated volume = 0.31 bbl — Reported volume = 0.3 bbl

Whenever this estimation tool is not applicable please refer to paragraph 6c. Deviations of the JIV procedure to use appropriate steps for volume estimation, record the calculation on a plain sheet of paper and attach to the JIV report.

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# JOINT INVESTIGATION REPORT

INCIDENT NO: 2617047 JVI REPORT SN: 0524

## 3. General Status of the site

Joint investigation of the incident site showed that there is no residual impact after the initial response and the remedial measures that have to be considered.

Investigation of the incident site showed that there is residual impact in the reporting location.

## 4. Representations

This report was 2617047 and 0524 by the following joint investigation team representatives

- **State Community**
- **Department of Petroleum Resources (DPR)**
- **National Oil Spill Detection and Response Agency (NOSDRA)**
- **State Ministry of Environment (SME)**
- **The Shell Petroleum Development Company (SPDC)**
- **Department (DPR) from the area that we will cover today**
- **Department (NOSDRA) from the area that we will cover today**
- **Department (SME) from the area that we will cover today**

Not applicable

