

# JOINT INVESTIGATION REPORT

INCIDENT NO: 3035490 JIV report S/N: 0001045

(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: 3035490 2. Type of incident\* OIL SPILL  
3. Name of Location 4" OBELE - IBAA DELIVERY LINE  
4. Name of nearest community IBAA 5. State: RIVERS 6. LGA EMOHUA  
7. Production Facility/Installation CRUDE OIL DELIVERY LINE  
8. Asset Owner/Hub THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 27<sup>TH</sup> SEPTEMBER 2021  
b. Start date/time of Investigation: 29<sup>TH</sup> SEPTEMBER 2021 / 1250 HRS  
c. Investigation End date: 29<sup>TH</sup> SEPTEMBER 2021 Day(s) on site: ONE DAY  
d. Description of spill point environment:

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Firm soil                | <input checked="" type="checkbox"/> Loose soil | <input checked="" type="checkbox"/> Recently excavated area |
| <input type="checkbox"/> Under water              | <input type="checkbox"/> Swampy                | <input type="checkbox"/> Exposed pipe surface               |
| <input type="checkbox"/> Well Platform (on water) | <input type="checkbox"/> Drill Rig             | <input type="checkbox"/> 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 checked="" type="checkbox"/> Hack saw cut                           |
| <input type="checkbox"/> Complete Rupture                           | <input type="checkbox"/> Inward dent,         | <input type="checkbox"/> Well head tampering                               |
| <input type="checkbox"/> Failed Weld-on illegal hot tap valve       | <input type="checkbox"/> Failed Clamp,        | <input type="checkbox"/> Missing Pipeline/Flowline                         |
| <input 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) Siltation (d) Water Leak (e) Fire (f) Non-leaking theft point removal

Version 2020/01

Distribution of copies: White (Asset Owner); Pink (DPR); Green (NOSDRA); Yellow (State Ministry of Environment); Blue (Host Community)

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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:       |
|----------------|----------------|
| <u>4.97167</u> | <u>6.80431</u> |
| /              | /              |
| /              | /              |

## 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
  <sup>SEASONAL</sup> Swamp
  Waterbody (specify) \_\_\_\_\_

iii. Weather condition

- Dry
  Wet
  Windy
  Hot

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

- Government reserved and designated protected area [ NIL,m]  
 Drinking water source [ NIL,m]  
      Surface water       Borehole  
 Built up Area [ NIL,m]  
      Residential Area       Commercial/Industrial Area  
 Farmlands [ ✓,m] IMPACTED  
 Fish Farm/Pond [ NIL,m]  
 Fishing net [ NIL,m]  
 Others (specify) \_\_\_\_\_ [ NIL,m]

### 12. Containment measures put in place:

- Booms
  Trench
  Dyke
  Pit
  Natural depression
  None  
 Others: \_\_\_\_\_

13. Any pictures or video coverage?

NY [N]

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

Y [N]

If yes to item 14, give brief description:

REPAIR ACTIVITIES ONGOING.

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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): NOT APPLICABLE

- 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           |
|-----|------------------|-------------------------------------|-------------------------------------|-------------------------------------|-----------------|--------------------|
| 1   | <u>PALM TREE</u> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>MANY</u>     |                    |
| 2   | <u>CASSAVA</u>   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>12</u>       |                    |
| 3   | <u>GUAVA</u>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>4</u>        |                    |
| 4   | <u>BAMBUS</u>    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>2 CLUMPS</u> | <u>IBAA GARDEN</u> |

19. Fish/Nets/Ponds

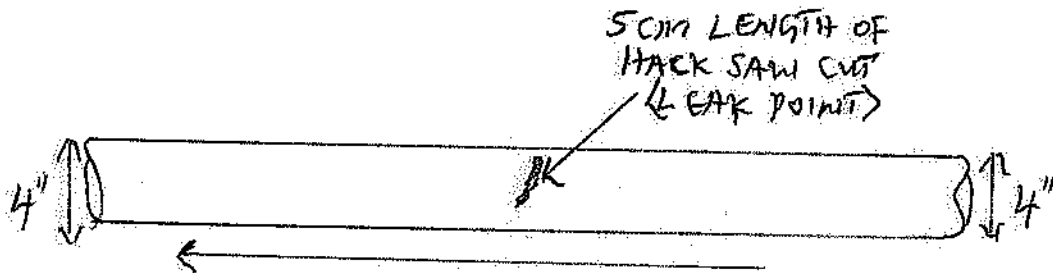
| S/N                               | Fish/Nets/Ponds | Description | Quantity/Size | Comments |
|-----------------------------------|-----------------|-------------|---------------|----------|
| <u>NONE WITHIN AREA OF IMPACT</u> |                 |             |               |          |

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)

SECTION OF 4" OBELE ~ IBAA DELIVERY LINE AT IBAA SHOWING G  
 HACK SAW CUT BY UNKNOWN PERSON(S) AT 9-11 O'CLOCK  
 POSITION.



FROM OBELE TO IBAA

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F: TABLE SHOWING SOME OF COORDINATES TAKEN DURING JIV FOR AREA CALCULATION

21. Impacted area boundary Coordinates (If more, Print and attach as Appendix)

| S/N | Northing | Easting |
|-----|----------|---------|
|     |          |         |
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|     |          |         |

*Handwritten note across the table: Points to see attached.*

(3035490).4" Obele - Ibaa Delivery line at Ibaa

| PNT_ISD | LAT     | LONG    | PNT_ISD | LAT     | LONG    |
|---------|---------|---------|---------|---------|---------|
| 1       | 4.97169 | 6.80435 | 41      | 4.97127 | 6.79994 |
| 2       | 4.97157 | 6.80436 | 42      | 4.97142 | 6.79967 |
| 3       | 4.97123 | 6.80434 | 43      | 4.97172 | 6.79997 |
| 4       | 4.9704  | 6.80429 | 44      | 4.97181 | 6.80017 |
| 5       | 4.97035 | 6.80421 | 45      | 4.97186 | 6.80031 |
| 6       | 4.97031 | 6.80417 | 46      | 4.97181 | 6.80045 |
| 7       | 4.97024 | 6.80427 | 47      | 4.9718  | 6.80079 |
| 8       | 4.97019 | 6.80429 | 48      | 4.97172 | 6.80101 |
| 9       | 4.97015 | 6.80426 | 49      | 4.97146 | 6.8012  |
| 10      | 4.97018 | 6.80413 | 50      | 4.97135 | 6.80136 |
| 11      | 4.97006 | 6.80405 | 51      | 4.97126 | 6.80156 |
| 12      | 4.96997 | 6.80402 | 52      | 4.97116 | 6.80163 |
| 13      | 4.96991 | 6.80394 | 53      | 4.97102 | 6.80169 |
| 14      | 4.9698  | 6.80395 | 54      | 4.97086 | 6.80166 |
| 15      | 4.96963 | 6.80398 | 55      | 4.97023 | 6.8022  |
| 16      | 4.96956 | 6.80398 | 56      | 4.97035 | 6.80256 |
| 17      | 4.96946 | 6.80389 | 57      | 4.9705  | 6.80271 |
| 18      | 4.96943 | 6.80379 | 58      | 4.97042 | 6.8028  |
| 19      | 4.96955 | 6.80379 | 59      | 4.97029 | 6.80288 |
| 20      | 4.96961 | 6.80381 | 60      | 4.97038 | 6.80321 |
| 21      | 4.96965 | 6.80366 | 61      | 4.97041 | 6.80329 |
| 22      | 4.9697  | 6.80356 | 62      | 4.97035 | 6.80346 |
| 23      | 4.96977 | 6.80347 | 63      | 4.97033 | 6.80354 |
| 24      | 4.96979 | 6.80287 | 64      | 4.97038 | 6.8036  |
| 25      | 4.96982 | 6.80277 | 65      | 4.97047 | 6.80375 |
| 26      | 4.96988 | 6.80266 | 66      | 4.97043 | 6.8039  |
| 27      | 4.96999 | 6.80268 | 67      | 4.97041 | 6.80402 |
| 28      | 4.96998 | 6.80246 | 68      | 4.97055 | 6.80409 |
| 29      | 4.9698  | 6.80199 | 69      | 4.97081 | 6.80415 |
| 30      | 4.96983 | 6.80178 | 70      | 4.97103 | 6.80421 |
| 31      | 4.96979 | 6.80106 | 71      | 4.9712  | 6.80421 |
| 32      | 4.9697  | 6.80066 | 72      | 4.97157 | 6.80427 |
| 33      | 4.96979 | 6.8005  | 73      | 4.9717  | 6.80427 |
| 34      | 4.96996 | 6.80027 | SP      | 4.97167 | 6.80431 |
| 35      | 4.97015 | 6.80038 |         |         |         |
| 36      | 4.97033 | 6.80039 |         |         |         |
| 37      | 4.97039 | 6.80023 |         |         |         |
| 38      | 4.97064 | 6.80026 |         |         |         |
| 39      | 4.97094 | 6.80024 |         |         |         |
| 40      | 4.97111 | 6.79998 |         |         |         |

*Handwritten signature*

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 5.53 HA
- Impact within SPDC R.O.W YES
- Impact outside SPDC R.O.W YES

\* Round off to 2 decimal places if area is  $\geq 100 \text{ m}^2$  or to 4 decimal places if area is  $< 100 \text{ m}^2$  (e.g. 14.55, 0.0051, 0.0009)  
\* Express in Hectares (Ha)

### b. Volume of oil recovered before completion of JIV ( $V_{\text{rec}}$ ):

|                                  |            |         |
|----------------------------------|------------|---------|
| Recovered oil $V_{\text{rec}}$ : | <u>NIL</u> | Barrels |
|----------------------------------|------------|---------|

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

|            |         |
|------------|---------|
| <u>NIL</u> | Barrels |
|------------|---------|

### c. Net Estimated Spilled Volume $V_{\text{Est}}$ (bbls) =

375.03 BARRELS

Estimated Reported Volume\*\*  $V_{\text{rep}}$  (bbls) =

376 BARRELS

#### \*Notes:

- Volume estimation was done using an excel based tool. (see attached for details on the calculation)
- Reported spilled volume is an estimate

Write other relevant notes 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  $\text{m}^3$  to barrels is Volume ( $\text{m}^3$ )  $\times$  6.29; \*\*Round up estimated volume to next whole number using the following rules:

- Any spill volume in excess of 1 bbl is rounded up to the next whole number.
- Any spill volume in less than 1 bbl is rounded up to the next 0.1 bbl.

Examples: Calculated volume = 15.3 bbl ----- Reported volume = 16 bbl  
Calculated volume = 0.35 bbl ----- Reported volume = 0.4 bbl  
Calculated volume = 0.01 bbl ----- Reported volume = 0.1 bbl

Wherever this estimation tool is not applicable please refer to paragraph 6c (Deviations) of the JIV procedure to use appropriate steps for column estimation; record the calculation in a plain sheet of paper and attach to the JIV report.

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## d. General Status of the site

- i. Joint investigation of the incident site found that there is no residual impact after the initial response and JIT therefore recommend that the site be closed out
- ii. Investigation of the incident site showed that there is residual impact on site requiring further works

## e. Representatives

This report was filled, agreed and signed by the following joint investigation team representatives:

- Host 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]:
- Separate DPR form has been filled out with same findings
- Separate NOSDRA form has been filled out with same findings
- Separate SME form has been filled out with same findings

*Tick as applicable*

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f. Appendix 1: Overview sketch of the site

