

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2775976 JIV report S/N: 0605

(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: 2775976 2. Type of incident\* OIL SPILL  
3. Name of Location 8" AGBADA 2 - NKYOKU PIPELINE  
4. Name of nearest community RUKPOKWU 5. State: RIVERS 6. LGA OBIO AKPOR  
7. Production Facility/Installation CRUDE 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: 3<sup>RD</sup> NOVEMBER 2020  
b. Start date/time of Investigation: 4<sup>TH</sup> NOVEMBER 2020 / 12:25 HRS  
c. Investigation End date: 6<sup>TH</sup> NOVEMBER 2020 Day(s) on site: THREE (3) DAYS  
d. Description of spill point environment

- |   |                                     |  |
|---|-------------------------------------|--|
| <input checked="" type="checkbox"/> Firm soil     | <input type="checkbox"/> Loose soil | <input 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 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 ( _____ )                             |   |  |

Others (specify) EQUIPMENT FAILURE

## 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>4.91323</u>	<u>6.99946</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     
  Swamp     
  Waterbody (specify) \_\_\_\_\_

iii. Weather condition

- Dry     
  Wet     
  Windy     
  Hot

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

- Government reserved and designated protected area [    ,m]  
 Drinking water source [    ,m]  
      Surface water       Borehole  
 Built up Area [   6   ,m]  
      Residential Area       Commercial/Industrial Area  
 Farmlands [    ,m]  
 Fish Farm/Pond [    ,m]  
 Fishing net [    ,m]  
 Others (specify) \_\_\_\_\_ [    ,m]

### 12. Containment measures put in place:

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

13. Any pictures or video coverage?  [N]

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

If yes to item 14, give brief description:

RECOVERY AND REPAIR ACTIVITIES ARE 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):

- Delayed Community Access Approval  Security Challenges  Access constraint due to terrain

Others (specify) NOT APPLICABLE

## 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
1	FENCE	COMPLETE WALL	-	-	IMPACTED BY spill

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

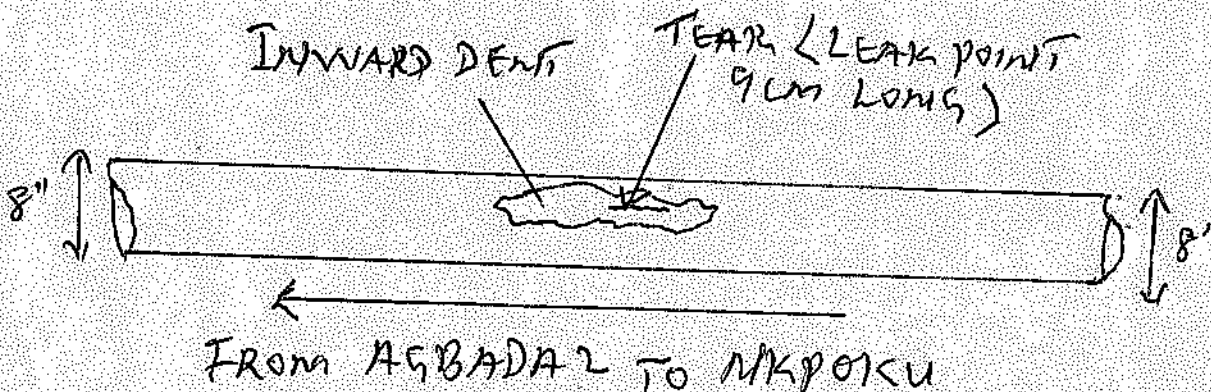
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

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)

SECTION OF 8" AGBADA 2 - MKPOKU PIPELINE AT RUKPOKUNU  
SHOWING POSITION OF EQUIPMENT FAILURE AT 9 O'CLOCK.



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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

SEE ATTACHED  
22/5/20

JIV ALONG 8" AGBADA 2 TO RUKPOKU MANIFOLD AT RUKPOKU

PT_No	LAT	LONG
1	4.9132	6.99951
2	4.91315	6.99949
3	4.91318	6.99937
4	4.91341	6.99948
5	4.91342	6.99952
6	4.91343	6.99959
7	4.9138	6.99979
8	4.91385	6.99973
9	4.91393	6.99982
10	4.91396	6.99984
11	4.91403	6.99991
12	4.91406	6.99984
13	4.91415	6.99989
14	4.91412	6.99998
15	4.9141	6.99996
16	4.91409	6.99998
17	4.91405	6.99995
18	4.91401	6.99993
19	4.91394	6.99988
20	4.91394	6.99985
21	4.91389	6.99981
22	4.91387	6.99983
23	4.91384	6.99982
24	4.91378	6.99981
25	4.91356	6.99969
26	4.91345	6.99963
27	4.91332	6.99954
28	4.91329	6.99959
29	4.91324	7.0001
30	4.91324	7.0002
31	4.91321	7.00021
32	4.91322	6.99973
33	4.91323	6.99965
34	4.91323	6.99963
35	4.91322	6.99956
SP 1	4.91323	6.99946

*Handwritten signature*

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.12 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>54</u>	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

<u>MIL</u>	Barrels
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### c. Net Estimated Spilled Volume $V_{\text{Est}}$ (bbls)\* =

80.30 BARRELS

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

81 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 JIV 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

Location: 8" AGBADA 2 - NKPOKU PIPELINE AT RUKPOKWI

