

INCIDENT NO: 549337 JIV report S/N:  
JOINT INVESTIGATION REPORT<sup>1</sup>

0000110

(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: 549337 2. Type of incident<sup>2</sup> OIL SPILL  
3. Name of Location 28" BOMU - BONNY PIPELINE  
4. Name of nearest community BODO 5. State: RIVERS 6. LGA GOKANA  
7. Production Facility/Installation OIL PIPELINE  
8. Asset Owner/Hub THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LTD (SPDC)/PIPELINE

B. INCIDENT INFORMATION:

9. Details of incident

- a. Date Reported: 3RD AUGUST 2022 b. JIV Start date/time: 4TH AUGUST 2022  
c. Investigation End date: 7TH AUGUST 2022 d. Effective Investigation Duration: FOUR (4) DAYS  
e. Description of incident point environment

- |   |                                     |  |
|---|-------------------------------------|--|
| <input 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: THE SPILL IS MORE OF WATER. WATER IS OVER 98% OF THE LEAK

f. Description of leak point (tick as applicable);

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Smooth round-edge hole                                   | <input checked="" type="checkbox"/> Rough-edge hole                        | <input type="checkbox"/> Straight cut (Similar to 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"/> Saver-pt over flow                     |
| <input type="checkbox"/> 3 <sup>rd</sup> Party removal of Pipeline/Flowline/Clamp | <input type="checkbox"/> Crude oil theft (illegal bunkering) point,        |   |
| <input type="checkbox"/> 3 <sup>rd</sup> tampering with Clamp                     | <input type="checkbox"/> 3 <sup>rd</sup> tampering with valve setting      | <input type="checkbox"/> Bulging Outward                        |
| <input type="checkbox"/> 3 <sup>rd</sup> tampering with flange,                   | <input type="checkbox"/> Flare System/Bund wall failure                    | <input type="checkbox"/> Surge vessel overflow,                 |
| <input type="checkbox"/> Valve Failure  | <input type="checkbox"/> Accidental 3 <sup>rd</sup> party equipment impact | <input type="checkbox"/> Tear (_____)                           |
| <input type="checkbox"/> Others(specify) _____                                    |  |   |

g. Incident caused by:

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

<sup>1</sup> Incidents  $\leq 100m$  are apart to be aggregated as one incident

<sup>2</sup> This can be: (a) Oil Spill (b) Drilling fluid/Chemical (c) Siltation (d) Water Leak (e) Fire (f) Non leaking Theft point removal

Version 2022/01

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

INCIDENT NO: 549337 JIV report S/N: 000110  
**JOINT INVESTIGATION REPORT<sup>1</sup>**

h. Incident point coordinates (Measuring unit: )	
<input checked="" type="checkbox"/> Latitude <input type="checkbox"/> Northing	<input checked="" type="checkbox"/> Longitude: <input type="checkbox"/> Easting
4.6152 <del>4</del> <sup>4</sup>	7.2671

**C. RISK ASSESSMENT**

10. Details of Environment

i. Type of environment where incident 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 [IMPACTED]  
 Residential Area     Commercial/Industrial Area  
 Farmlands [IMPACTED]  
 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:

SPILL RESPONSE / LEAK REPAIR

Version 2022/01

INCIDENT NO: 549337 JIV report S/N:  
**JOINT INVESTIGATION REPORT** 0000110

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

If yes to item 15 give brief description:

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

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
1	BUNGALOW	UNPLASTERED WALL		ONE (1)	IMPACTED

18. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
1	CASSAVA/MELON	YES	YES	YES	MANY	IMPACTED
2	COCONUTS/COLOYAM	YES	YES	4 COCONUTS	MANY COLOYAM	
3	PLANTAIN/BITTER LEAF	YES	YES	MATURE	OKRO WAS IMPACTED	

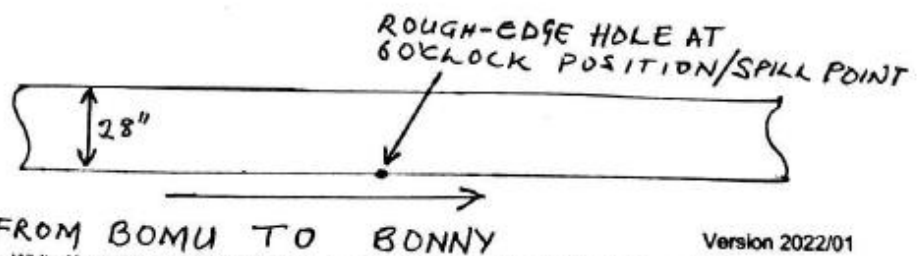
19. Fish/Nets/Ponds

S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments

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

S/N	Others	Description	Quantity/Size	Comments
1	GUAYA	MEDIUM	1	IMPACTED

**E. GRAPHIC DESCRIPTION OF LEAK POINT** (while detail report of the leak point should be contained in the leak report, overview sketch of the site should be added as an appendix 1) A SECTION OF 28" BOMU - BONNY PIPELINE AT BODO SHOWING ROUGH-EDGE HOLE AT 6 O'CLOCK POSITION, DUE TO EQUIPMENT FAILURE.





28" BOMU - BONNY PIPELINE AT BODO_549337		
PNT_ID	LAT	LONG
1	4.61519	7.26699
2	4.61526	7.26702
3	4.61523	7.26707
4	4.61516	7.26714
5	4.6151	7.26716
6	4.61511	7.26709
7	4.61506	7.26704
8	4.61488	7.26692
9	4.61489	7.26696
10	4.61487	7.267
11	4.61478	7.267
12	4.61476	7.26694
13	4.61479	7.26691
14	4.61467	7.26682
15	4.61465	7.26683
16	4.61464	7.26686
17	4.61453	7.26683
18	4.61453	7.26677
19	4.61456	7.26677
20	4.61455	7.26673
21	4.61455	7.2667
22	4.61466	7.26677
23	4.61481	7.26689
24	4.61489	7.2669
25	4.61507	7.26702
26	4.61518	7.26703
SP	4.61524	7.2671

*N. W. 128*  
*7/8/2022*

INCIDENT NO: 549337 JIV report S/N:

# JOINT INVESTIGATION REPORT<sup>1</sup>

0000110

## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.06 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<sup>3</sup> ( $V_{rec}$ ):

Recovered oil $V_{rec}$	<u>2</u>	Barrels
-------------------------	----------	---------

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

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

c. Net Estimated Spilled Volume  $V_{Est}$ (bbls)\* = 4.73 BARRELS

Estimated Reported Volume\*\*  $V_{rep}$ (bbls) = 5 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: THE LINE HAVE BEEN PLUSHED AND FILLED WITH WATER FOR MONTHS, THE POINT OF LEAK IS AT A VERY LOW END OF THE LINE, THE JIT OBSERVED EFFLUENTS (MOSTLY WATER) COMING OUT OF THE LINE FOR FOUR (4) DAYS WHICH CONFIRMED THE CONTENTS OF THE LINE. THE ESTIMATED OIL WAS FOUND ON SITE ON THE FIRST DAY AND WAS ALLEGED TO HAVE COME FROM THE LINE BY THE COMMUNITY

Calculation of the respective estimated volume is to be done on site as far as practicable using the new spill<sup>2</sup> volume estimation software on site; Conversion of  $\text{m}^3$  to barrels is Volume ( $\text{m}^3$ ) x 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.

<sup>1</sup> Please note that total recovered volume will be reported after complete recovery of available free phase oil

Version 2022/01

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

INCIDENT NO: 549337 JIV report S/N: 000110

## JOINT INVESTIGATION REPORT<sup>1</sup>

### 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 <input type="checkbox"/>
ii. Investigation of the incident site showed that there is residual impact on site requiring further works <input checked="" type="checkbox"/>

### e. Representatives

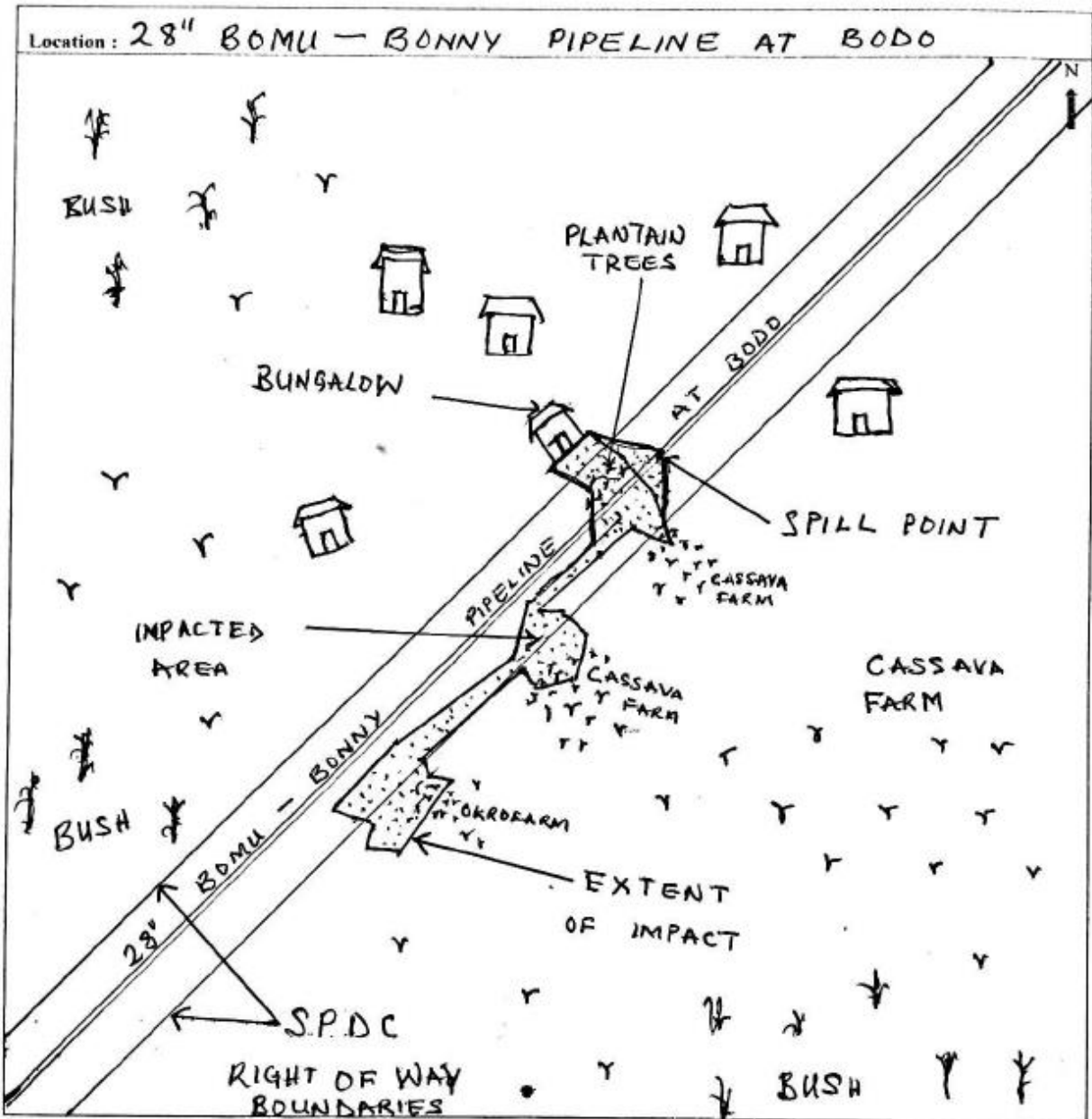
<p>This report was <u>filled</u>, <u>agreed</u> and <u>signed</u> by the following joint investigation team representatives:</p> <ul style="list-style-type: none"><li>• Host Community: <input checked="" type="checkbox"/></li><li>• Nigerian Upstream Petroleum Regulatory Commission [NUPRC]: <input type="checkbox"/></li><li>• National Oil Spill Detection and Response Agency [NOSDRA]: <input checked="" type="checkbox"/></li><li>• State Ministry of Environment [SME]: <input checked="" type="checkbox"/></li><li>• The Shell Petroleum Development Company [SPDC]: <input checked="" type="checkbox"/></li><li>• <i>Separate NUPRC form has been filled out with same findings</i> <input type="checkbox"/></li><li>• <i>Separate NOSDRA form has been filled out with same findings</i> <input checked="" type="checkbox"/></li><li>• <i>Separate SME form has been filled out with same findings</i> <input checked="" type="checkbox"/></li></ul> <p style="text-align: right;"><i>Tick as applicable</i></p>
--

Version 2022/01

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

INCIDENT NO: 549337 JIV report S/N: 0000110  
JOINT INVESTIGATION REPORT<sup>1</sup>

f. Appendix 1: Overview sketch of the site



Version 2022/01

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