

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1949075 JIV report S/N: 0901

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

## A. GENERAL INFORMATION:

1. Spill incident Number: 1949075 2. Type of incident: CLAMP THEFT  
 3. Name of Location: 28" NKPOKU - BOMU PIPELINE  
 4. Name of nearest community: NORKPO 5. State: RIVERS 6. LGA: TAI  
 7. Type of Production facility/Installation: OIL PIPELINE  
 8. Asset owner/District: THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
 a. Date of incident: 16TH OCTOBER, 2017  
 b. Start date/time of investigation: 17TH OCTOBER, 2017 / 13:48 HOURS  
 c. Investigation End date: 17TH OCTOBER, 2017 Actual investigation duration, days: ONE (1) 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             |                                                             |

Additional observations around the spill point: NO SPILL IMPACT WAS OBSERVED AS AT TIME OF INVESTIGATION. UPON EXPOSURE BY EXCAVATION, A 28" X 14" PLIDCO SPLIT SLEEVE CLAMP PREVIOUSLY INSTALLED BY THE SPDC ASSET OWNER WAS NOTICED MISSING, HAVING BEEN REMOVED BY UNKNOWN PERSON(S). THE JOINT INVESTIGATION TEAM WAS SHOWN A CLAMP SLEEVE LEFT BEHIND BY THE SUSPECTED CLAMP THIEVES.

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

- |                                                                     |                                                                                                       |                                                                            |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <input type="checkbox"/> Drilled hole                               | <input type="checkbox"/> Hack saw cut                                                                 | <input type="checkbox"/> Tear (_____).                                     |
| <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"/> Corrosion                                  | <input checked="" type="checkbox"/> Others(specify) <u>MISSING CLAMP REMOVED BY UNKNOWN PERSON(S)</u> |                                                                            |

## f. Incident caused by:

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

\*This can be: a) Oil Spill b) Drilling fluid/Chemical c) Siltation d) construction e) Encroachment f) Fire,



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g. Spill point coordinates

h. Measuring unit

WGS 84

|                            |                           |
|----------------------------|---------------------------|
| Northings: <u>LATITUDE</u> | Easting: <u>LONGITUDE</u> |
| <u>4.73590</u>             | <u>7.20479</u>            |
|                            |                           |
|                            |                           |
|                            |                           |

## C. RISK ASSESSMENT

10. Type of environment:

☒ Land ☐ Swamp ☐ Water ☐ Seasonal swamp ☐ Shoreline/Waterfront

i. Type of environment to which oil has spread:

☐ Land ☐ Swamp ☐ Water ☐ River (identify) \_\_\_\_\_

ii. Weather condition

☒ Rain ☐ Sunny ☐ Dry ☐ Wet ☐ Windy ☐ Hot ☐ Cool

**NOT APPLICABLE (NO SPILL IMPACT WAS OBSERVED AT SITE AS AT TIME OF JOINT INVESTIGATION VISIT)**

11. Distance from the nearest sensitive habitat

☐ Government reserved and designated protected area [ ] m  
☐ Drinking water source **NO SPILL IMPACT WAS OBSERVED AS AT TIME OF INVESTIGATION** [ ] m  
☐ Built up area [ ] m  
☐ Farmlands [ ] m  
☐ Fish Farm/pond [ ] m  
☐ Fishing net [ ] m  
☐ Others (specify). [ ] m

12. Containment measures put in place:

☐ Booms ☐ Trench ☐ Dyke ☐ Natural depression ☐ Pit ☐ None

☒ Others: **NOT APPLICABLE**

13. Any pictures or video coverage?

[X] [N]

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

[Y] [X]

if yes to item 14, give brief description:

**NOT APPLICABLE**

15. Was there any disruption to the investigation?

[Y] [X]



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If yes to item 15 give brief description:

NOT APPLICABLE

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

### 16. Structures / Properties

| S/N | Type of Structures | Description       | Size | Number | Comments |
|-----|--------------------|-------------------|------|--------|----------|
|     | <u>NOT</u>         | <u>APPLICABLE</u> |      |        |          |
|     |                    |                   |      |        |          |
|     |                    |                   |      |        |          |

### 17. Crops/Economic Trees

| S/N | Type of crops | Young             | Medium | Matured | Quantity | Comments |
|-----|---------------|-------------------|--------|---------|----------|----------|
|     | <u>NOT</u>    | <u>APPLICABLE</u> |        |         |          |          |
|     |               |                   |        |         |          |          |
|     |               |                   |        |         |          |          |

### 18. Fishing Nets/Fish Ponds

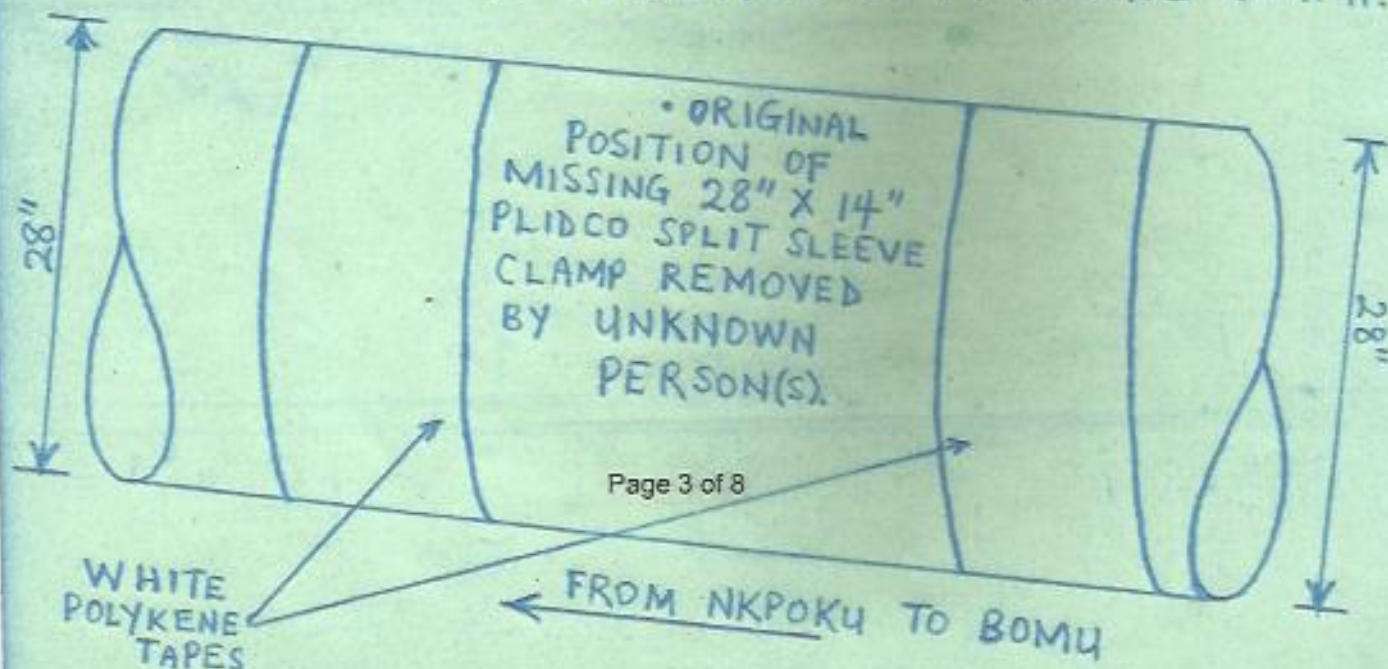
| S/N | Nets/Ponds | Description       | Quantity/Size | Comments |
|-----|------------|-------------------|---------------|----------|
|     | <u>NOT</u> | <u>APPLICABLE</u> |               |          |
|     |            |                   |               |          |
|     |            |                   |               |          |

### 19. Others (Specify) i.e. Animal Traps

| S/N | Others     | Description       | Quantity/Size | Comments |
|-----|------------|-------------------|---------------|----------|
|     | <u>NOT</u> | <u>APPLICABLE</u> |               |          |
|     |            |                   |               |          |
|     |            |                   |               |          |

## 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 I)*

SECTION OF 28" NKPOKU - BOMU PIPELINE AT  
NORKPO SHOWING EVIDENCE OF MISSING CLAMP.









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## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact NIL
- Impact within R.O.W NIL
- Impact outside R.O.W NIL

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

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

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

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

### c. Net Estimated Spilled Volume $V_{est}(bbls)^* =$ NIL

Estimated Reported Volume\*\*  $V_{est}(bbls) =$  NIL

#### \*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 estimating the spilled in the box below.

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  $m^3$  to barrels is Volume ( $m^3$ )  $\times$  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 = 0.05 bbl ——— Reported volume = 0.1 bbl

Wherever this estimation tool is not applicable please refer to paragraph 6e (Deviations) of the JIV procedure to use appropriate steps for volume 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]: ☒
- Asset Owner: ☒
- Signatories agree with reported findings: ☒
- Separate DPR form has been filled out with same findings ☐

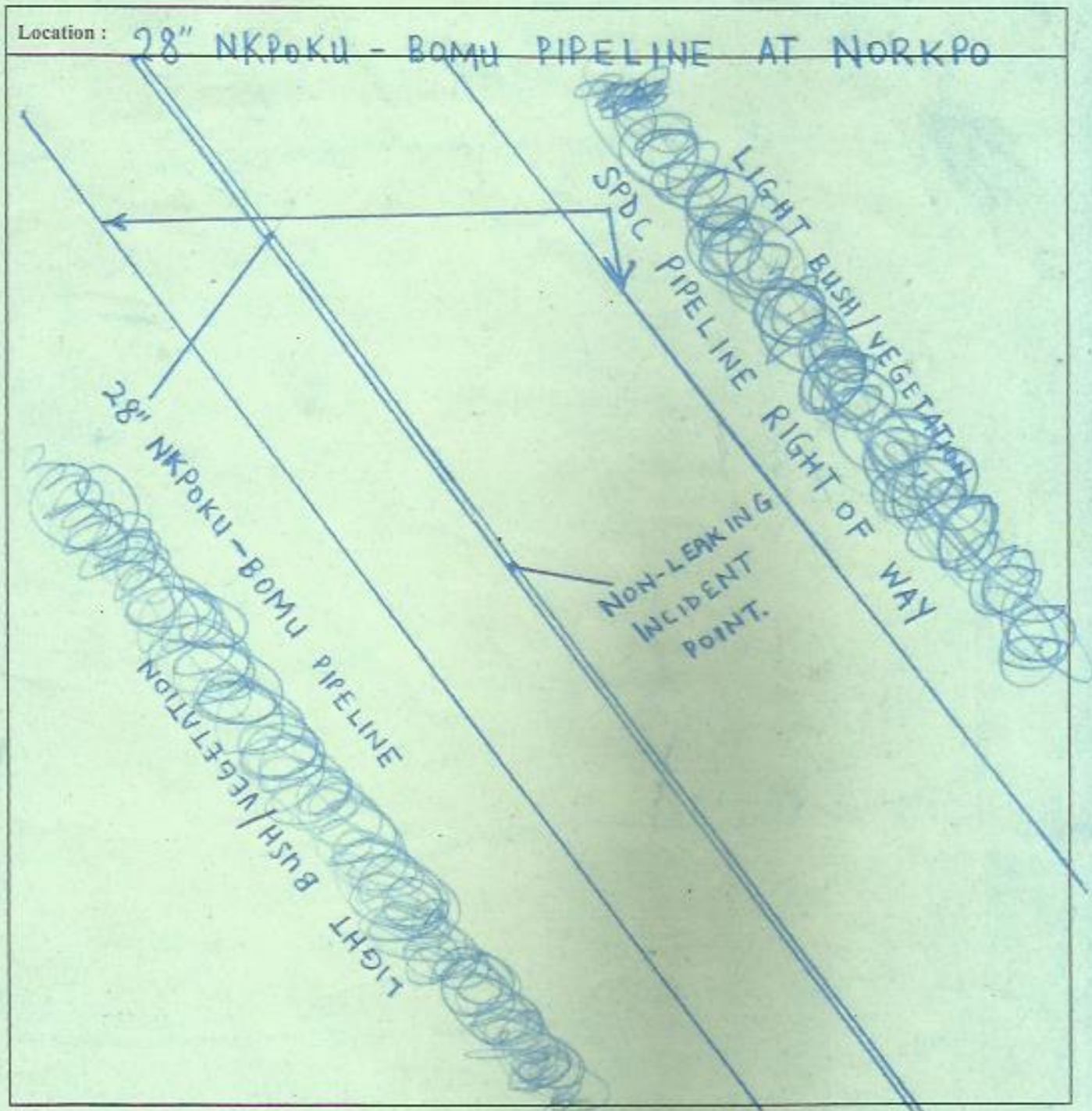
*Tick as applicable*



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f. Appendix 1: Overview sketch of the site





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## g. SIGNATORIES: JOINT INVESTIGATION TEAM MEMBERS

Having read through the JIV report, the following representatives append their respective signatures in agreement with the content therein:

| S/N | Name                   | Members present                                           | Designation        | Signature/Date and Time                         |
|-----|------------------------|-----------------------------------------------------------|--------------------|-------------------------------------------------|
| 1   |                        | DEPARTMENT OF PETROLEUM RESOURCES (DPR)                   |                    |                                                 |
| 2   | KOMS ABAM              | NATIONAL OIL SPILL DETECTION AND RESPONSE AGENCY (NOSDRA) | SES                | <i>[Signature]</i><br>17/10/2017<br>3:45 PM     |
| 3   | ORDU JAMES             | STATE MIN. OF ENVIRONMENT                                 | SSO                | <i>[Signature]</i><br>17/10/2017<br>3:45 PM     |
| 4   | EMILY N. L. NNE-NUKITE | HOST COMMUNITY REPRESENTATIVE                             |                    | <i>[Signature]</i><br>17/10/2017<br>15:37 HOURS |
| 5   | MOMOH IBRAHIM          | ASSET OWNER REPRESENTATIVE                                | OIL SPILL RESPONSE | <i>[Signature]</i><br>17/10/2017<br>15:39 HOURS |
| 6   | FIGEGBA BABA           | AIPF                                                      | CID                | <i>[Signature]</i><br>17/10/2017<br>15:38 HOURS |
|     |                        |                                                           |                    |                                                 |