

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2022280 JIV report S/N: 1023

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

## A. GENERAL INFORMATION:

1. Spill incident Number: 2022280 2. Type of incident\* OIL SPILL  
3. Name of Location 12" IMO RIVER - OGALE PIPELINE  
4. Name of nearest community KOM-KOM 5. State: RIVERS 6. LGA OYIGBO  
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: 20TH FEBRUARY, 2018  
b. Start date/time of investigation: 22ND FEBRUARY, 2018/13:27 HOURS  
c. Investigation End date: 24TH FEBRUARY 2018 Actual investigation duration, days: TWO (2) DAYS  
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: **THE SPILL POINT WAS OBSERVED WITHIN THE VICINITY OF A BUILT-UP AREA. SAND BAGS LEFT BY UNKNOWN PERSON(S) WERE OBSERVED AROUND THE SPILL POINT IN THE COURSE OF INVESTIGATION.**

### 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 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"/> Corrosion   | <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  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 (THEFT POINTS)  
 h. Measuring unit WGS 84

Northing:	Easting:
4.856493	7.164224

**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

11. Distance from the nearest sensitive habitat

- Government reserved and designated protected area [      ,m]
- Drinking water source [      ,m]
- Built up area [      ,m] IMPACTED BY SPILL
- 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: \_\_\_\_\_

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 DONE AND REPAIR WAS CARRIED OUT ON THE AFFECTED PIPELINE SECTION BY CLAMPING.

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

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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
1	BUILDING	BASE OF EXTERNAL WALL	20-METRE EXTERNAL LENGTH	1 NO.	EXTERNAL WALL BASE OF BUILDING IMPACTED BY SPILL

**17. Crops/Economic Trees**

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

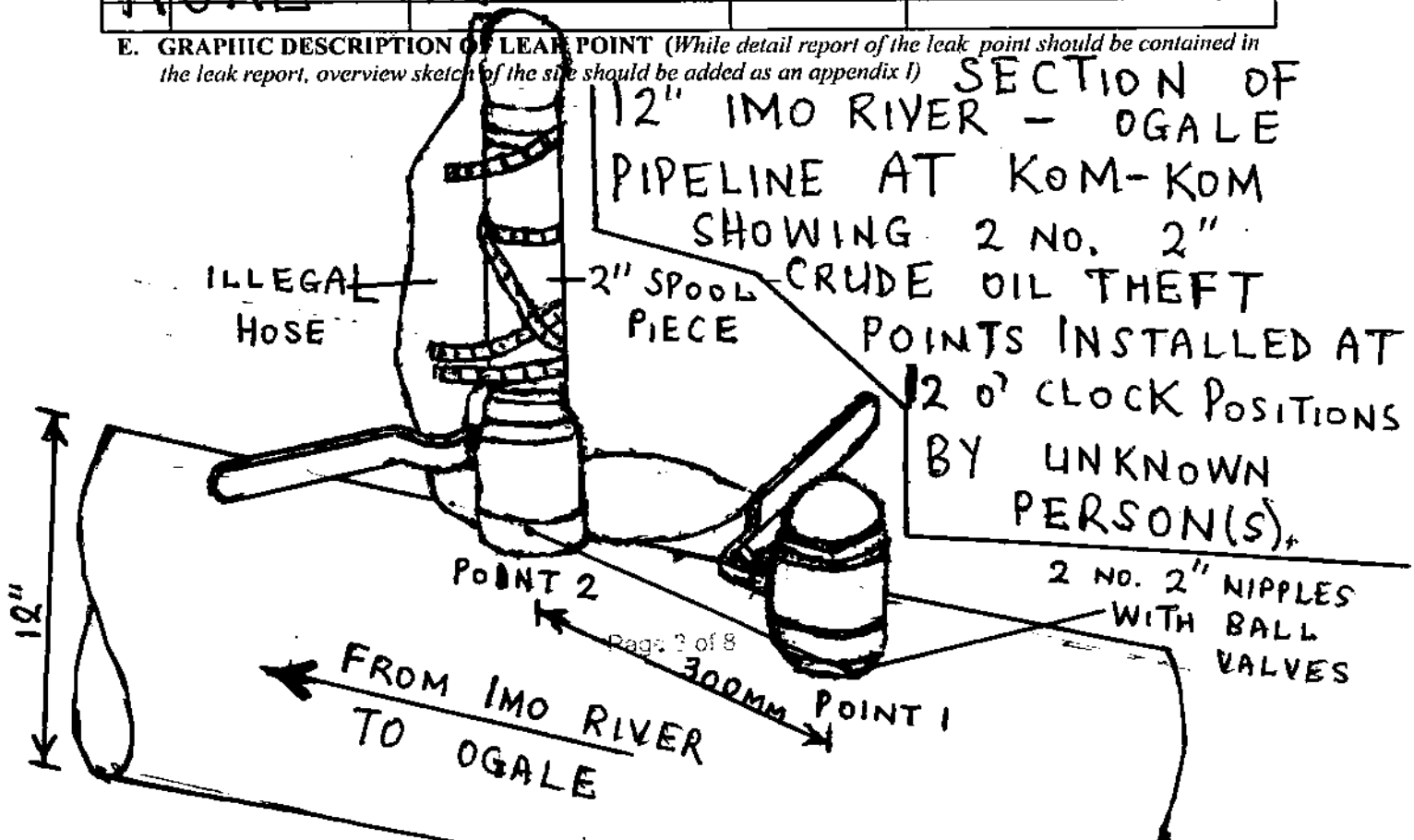
**18. Fishing Nets/Fish Ponds**

S/N	Nets/Ponds	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

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

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

**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)



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

20. Impacted area boundary Coordinates (If more, Print and attach as an appendix)

S/N	Northing	Easting

SEE ATTACHED APPENDIX A FOR IMPACTED AREA COORDINATES

**APPENDIX A****LOCATION: 12" IMO RIVER - OGALE PIPELINE AT KOM-KOM****INCIDENT NO. - 2022280****IMPACTED AREA COORDINATES (WGS 84)**

<b>PTS</b>	<b>NORTHING (Y)</b>	<b>EASTING (X)</b>
786	4.85656	7.16413
787	4.85639	7.16417
788	4.85634	7.16425
789	4.85648	7.16428
791	4.85657	7.16426
792	4.85637	7.16416
793	4.85628	7.1641
794	4.85617	7.16413
795	4.85628	7.1642
796	4.85624	7.16401
797	4.85613	7.16402
798	4.85605	7.16389
799	4.85611	7.16387
800	4.85598	7.16369
801	4.85589	7.16371
802	4.85586	7.16362
803	4.85576	7.16357
804	4.85574	7.16361
805	4.85582	7.16367
806	4.85579	7.16373
807	4.85572	7.16382
808	4.85601	7.16388
809	4.85601	7.16388
810	4.85593	7.16381
811	4.85572	7.16386
812	4.85574	7.16408
813	4.85574	7.16409
814	4.8557	7.16388
815	4.85545	7.16388
816	4.85547	7.16381
817	4.85573	7.16383

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact 0.17ha
- Impact within R.O.W YES
- Impact outside R.O.W YES

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

Recovered oil $V_{rec}$ :	<u>303</u>	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

<u>19</u>	Barrels
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c. Net Estimated Spilled Volume  $V_{Est}(bbls)^* = 565.98$

Estimated Reported Volume  $V_{Rpt}(bbls) = 566$  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 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 = 0.01 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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## I. Appendix 1: Overview sketch of the site

