

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1882589 JIV report S/N:

No: 0000310

(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: 188.2589 2. Type of incident\* OIL SPILL  
3. Name of Location: TUNU WELL - 7T WELLHEAD  
4. Name of nearest community AGBIDIAMA 5. State: BAYELSA 6. LGA EKEREMOR  
7. Type of Production facility/Installation WELLHEAD  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF

## B. INCIDENT INFORMATION: NIGERIA LIMITED / SWAMP WEST

### 9. Details of incident

- a. Date of incident: 26<sup>TH</sup> JUNE, 2017  
b. Start date/time of investigation: 29<sup>TH</sup> JUNE, 2017 AT 1411 HRS  
c. Investigation End date: 29<sup>TH</sup> JUNE, 2017 Actual investigation duration, days: ONE DAY  
d. Description of spill 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 checked="" type="checkbox"/> Well Platform (on Water) | <input type="checkbox"/> Drill Rig  |  |

Additional observations around the spill point: ON ASSESSMENT, THE JOINT INVESTIGATION TEAM OBSERVED A CORRODED LEAK POINT ON THE GOOSE NECK OF TUNU WELL - 7T WELLHEAD BEAM BOX AT 7 O' CLOCK POSITION. THE LEAK HAS STOPPED AS AT THE TIME OF THIS 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 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 checked="" type="checkbox"/> Others (specify) <u>CORROSION</u> |   |  |

### 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) Situation d) construction e) Encroachment f) Fire.

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g. Spill point coordinates

h. Measuring unit

WGS 84

Northing: <u>LATITUDE</u>	Easting: <u>LONGITUDE</u>
<u>4.87629</u>	<u>5.61374</u>
<u>°</u>	<u>'</u>
<u>E</u>	<u>E</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

11. Distance from the nearest sensitive habitat

- Government reserved and designated protected area [     ,m]
- Drinking water source [ 0 ,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: \_\_\_\_\_

13. Any pictures or video coverage?

[N]

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

[Y]

If yes to item 14, give brief description:

NOT APPLICABLE

15. Was there any disruption to the investigation?

[Y]

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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
<b>NONE WITHIN AREA OF IMPACT</b>					

**17. Crops/Economic Trees**

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
1-	MANGROVES	FEW	FEW	---	FEW	OIL STAINED
/ / / / / / / /						

**18. Fishing Nets/Fish Ponds**

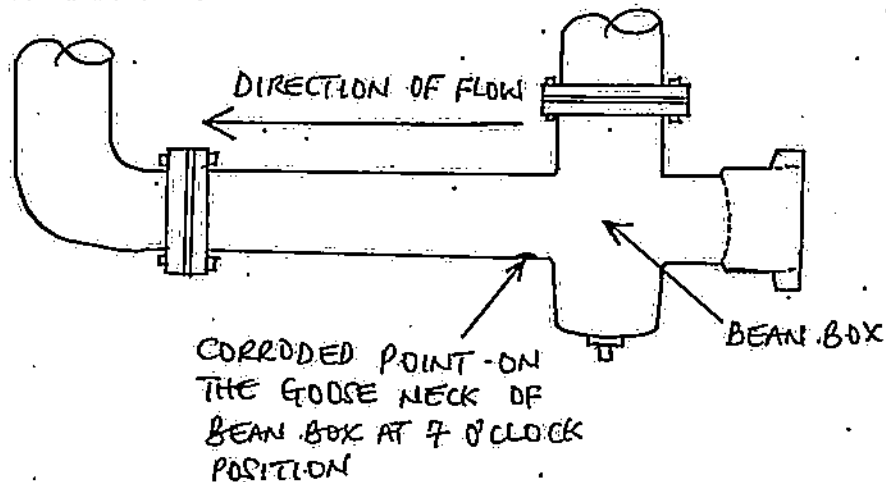
S/N	Nets/Ponds	Description	Quantity/Size	Comments
<b>NONE WITHIN AREA OF IMPACT</b>				

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

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

**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)

SECTION OF TUNU WELL-7T WELHEAD AT AGBIDIAMA AXIS SHOWING; CORRODED POINT ON THE GOOSE NECK OF BEAN BOX AT 7 O' CLOCK POSITION





APPENDIX 1

TUNU WELL-7T WELLHEAD AT AGBIDIAMA (2017\_1882589)

LIST OF COORDINATES

PT_ID	LONG_X	LAT_Y
SP	5.61374	4.87629
157	5.61387	4.87509
158	5.61368	4.87516
159	5.6135	4.87522
160	5.6135	4.87558
161	5.6135	4.87573
162	5.61348	4.87619
163	5.61348	4.87655
164	5.61368	4.87658
166	5.6139	4.87657
167	5.614	4.87652
168	5.61398	4.87624
169	5.61347	4.87583
170	5.61371	4.87581
171	5.61381	4.87512
172	5.61344	4.87583
173	5.61344	4.87589
174	5.61348	4.8759
175	5.61358	4.87659
176	5.61379	4.87659
177	5.61398	4.87583
178	5.61937	4.87563
179	5.61394	4.87544
180	5.61359	4.87608
181	5.61373	4.87606
182	5.61387	4.87608
183	5.61387	4.87597
184	5.61375	4.87594
185	5.61362	4.87597
186	5.61359	4.87584
187	5.61385	4.87581
188	5.61397	4.87562

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact 0.8343Ha
- Impact within R.O.W YES
- Impact outside R.O.W ~~NO~~ YES

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

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

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

40.45 BBLs

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

41 BBLs

#### \*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 (in 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 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 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]:
- 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

