

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1598133 JIV report S/N: Nº 0000149

(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: 1598133 2. Type of incident\* OIL SPILL  
3. Name of Location 12" OGUTA - EGBEMA DELIVERY LINE  
4. Name of nearest community EZIORSU 5. State: IMO 6. LGA OGUTA  
7. Type of Production facility/Installation DELIVERY LINE  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA

## B. INCIDENT INFORMATION:

(SPDC)

9. Details of incident  
a. Date of incident: 21<sup>ST</sup> MARCH 2016  
b. Start date/time of investigation: 26<sup>TH</sup> MARCH 2016  
c. Investigation End date: 31<sup>ST</sup> MARCH 2016 Actual investigation duration, days: TWO (2) DAYS  
d. Description of spill point environment  
 Firm soil  Loose soil  Recently excavated area  
 Under water  Swampy  Exposed pipe surface  
 Well Platform (on Water)  Drill Rig

Additional observations around the spill point:

NOT APPLICABLE

## 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"/> Others(specify) _____                                 |   |  |

## 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.

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1598133 JIV report S/N: N<sup>o</sup> 0000149

g. Spill point coordinates

WGS 84

h. Measuring unit

Northing:	Easting:
5.62231	6.75808
/	/
/	/
/	/

## 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

- |  |   |     |
|--|---|-----|
| <input type="checkbox"/> Government reserved and designated protected area | [ | .m] |
| <input type="checkbox"/> Drinking water source                             | [ | .m] |
| <input type="checkbox"/> Built up area                                     | [ | .m] |
| <input type="checkbox"/> Farmlands   | [ | .m] |
| <input type="checkbox"/> Fish Farm/Pond                                    | [ | .m] |
| <input type="checkbox"/> Fishing net                                       | [ | .m] |
| <input type="checkbox"/> Others (specify):                                 | [ | .m] |
- NONE WITHIN THE AREA OF IMPACT.

12. Containment measures put in place:

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

13. Any pictures or video coverage?

NY [N]

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

NY [N]

If yes to item 14, give brief description:

LEAK REPAIR COMMENCED.

15. Was there any disruption to the investigation?

NY [N]

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1598133 JIV report S/N: N<sup>o</sup> 0000149

If yes to item 15 give brief description:

LOCK DOWN DUE TO SECURITY THREAT AROUND THE AREA.

**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
NONE WITHIN AREA OF IMPACT					

**17. Crops/Economic Trees**

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

**18. Fishing Nets/Fish Ponds**

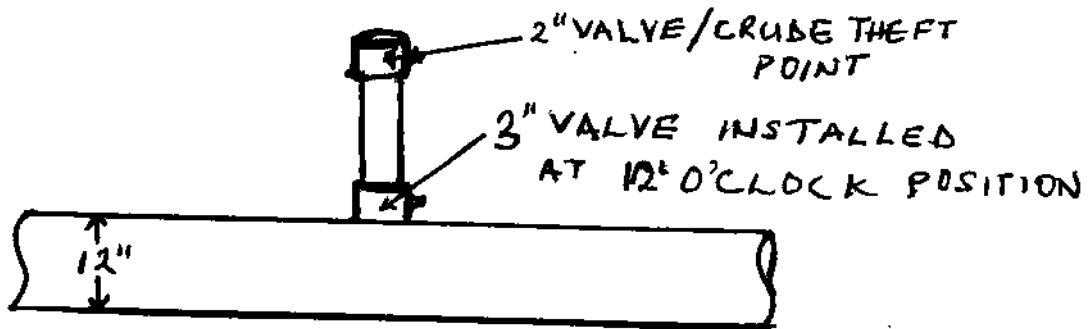
S/N	Nets/Ponds	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

**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 1)

A SECTION OF 12" OGUTA - EGBEMA DELIVERY LINE SHOWING 3" VALVE INSTALLED AT 12 O'CLOCK POSITION BY UNKNOWN PERSONS (CRUDE THEFT POINT)



←  
OGUTA TO EGBEMA

# JOINT INVESTIGATION REPORT

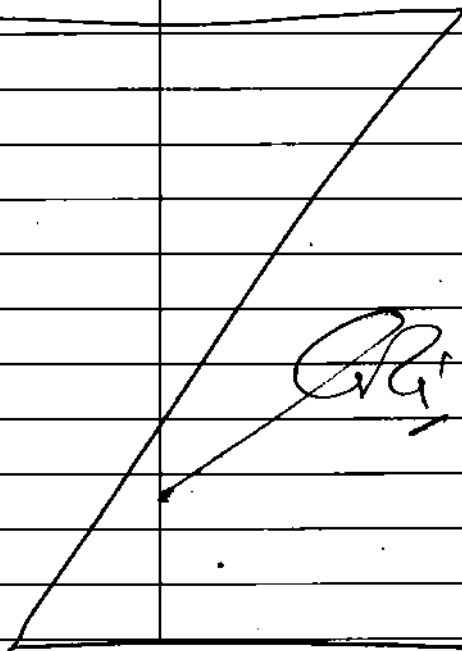
INCIDENT NO: 1598133 JIV report S/N: **Nº 0000149**

**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)

WGS 84

S/N	Northing	Easting
101	5.62225	6.75808
102	5.62233	6.75811
103	5.62233	6.75806
104	5.62218	6.75808
105	5.62217	6.75811
106	5.62219	6.75808
107	5.62217	6.75806
108	5.66267	6.70869
109	5.66264	6.70872
110	5.66264	6.70872
111	5.66264	6.70869



# JOINT INVESTIGATION REPORT

INCIDENT NO: 1598133 JIV report S/N: N<sup>o</sup>: 0000149

**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.009805HA (0.01HA) JIV
- Impact within R.O.W YES
- Impact outside R.O.W NO

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

Recovered oil $V_{rec.}$ :	<u>43 BARRELS</u>	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

<u>30 BBL</u>	Barrels
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**c. Net Estimated Spilled Volume  $V_{est}$  (bbls)\* =**

82.07

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

83 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:

/

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 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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INCIDENT NO: 1598133 JIV report S/N: N<sup>o</sup> 0000149

## 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"/>

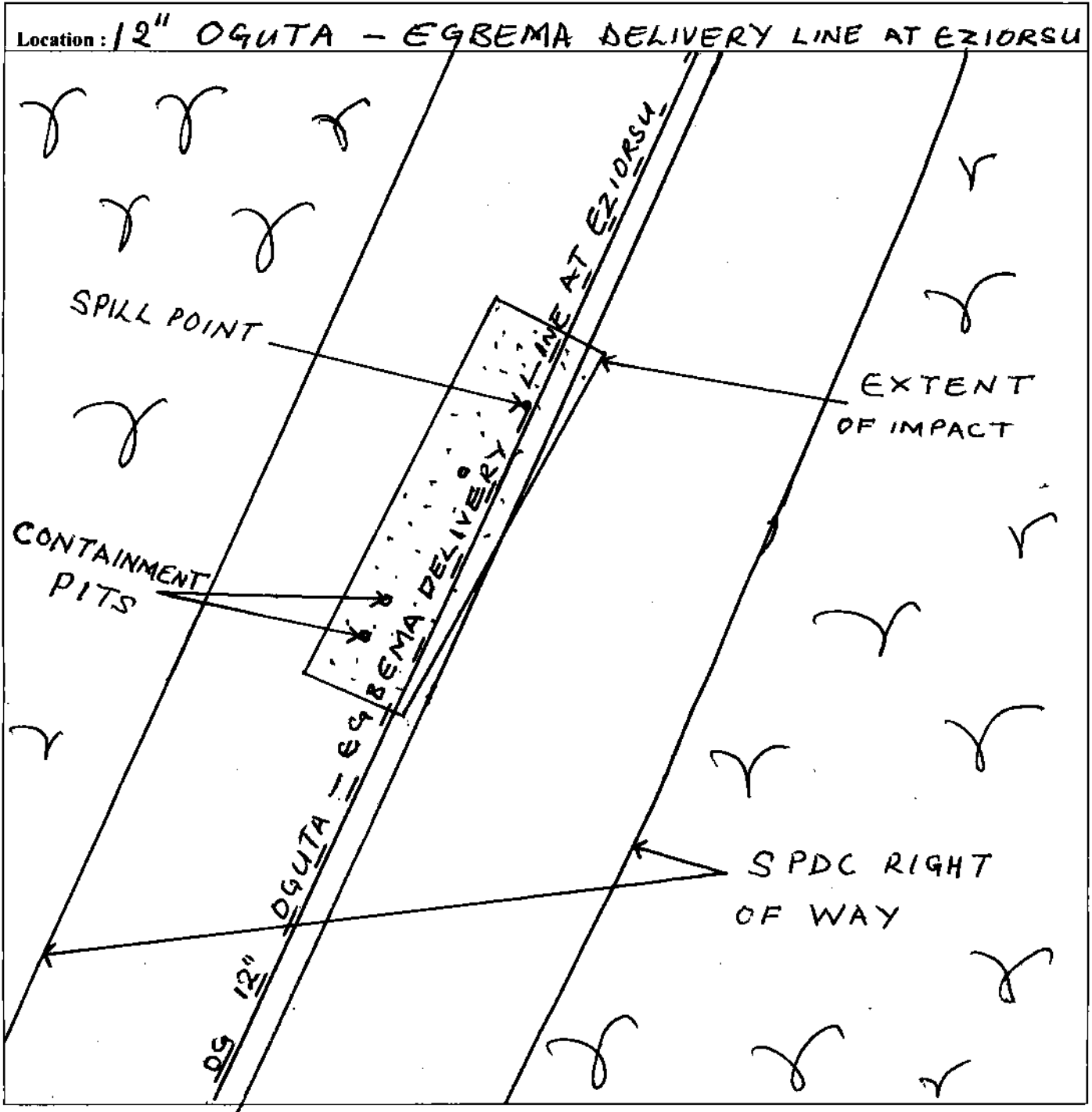
## e. Representatives

<p><b>This report was filled, agreed and signed by the following joint investigation team representatives:</b></p> <ul style="list-style-type: none"><li>• Host Community <input checked="" type="checkbox"/></li><li>• Department of Petroleum Resources [DPR] <input checked="" 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>• Asset Owner <input checked="" type="checkbox"/></li><li>• Signatories agree with reported findings <input checked="" type="checkbox"/></li><li>• Separate DPR form has been filled out with same findings <input checked="" type="checkbox"/></li></ul> <p style="text-align: right;"><i>Tick as applicable</i></p>
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INCIDENT NO: 1598133 JIV report S/N: N° 0000149

f. Appendix 1: Overview sketch of the site




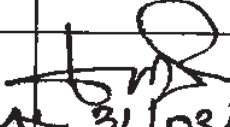



# JOINT INVESTIGATION REPORT

INCIDENT NO: 1598133 JIV report S/N: Nº 0000149

**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	AGIADU, K V	DEPARTMENT OF PETROLEUM RESOURCES (DPR)	EEIC	 31/3/2016
2	Pius Okon	NATIONAL OIL SPILL DETECTION AND RESPONSE AGENCY (NOSDRA)	CTO	 31/3/16
3	IFEANYI OYIICHA	STATE MIN. OF ENVIRONMENT	HOD PETROLEUM	 21/03/16
4	PRINCE EMMA O. UKADO	HOST COMMUNITY REPRESENTATIVE	PREIDENT-GENERAL	 31/03/2016
5	GERARD E. ONUISO	ASSET OWNER REPRESENTATIVE	W/O/S/PNPD	 11:45 AM 31/03/2016