

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2243182 JIV report S/N: 0106

(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: 2243182 2. Type of incident\* OIL SPILL  
3. Name of Location 14" OKORDIA - RUMUKEPE PIPELINE  
4. Name of nearest community ULA-IKATA 5. State: RIVERS 6. LGA AHOADA  
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: 9<sup>TH</sup> JANUARY, 2019  
b. Start date/time of investigation: 12<sup>TH</sup> JANUARY 2019 / 1329 HRS  
c. Investigation End date: 13<sup>TH</sup> JANUARY 2019 Actual investigation duration, days: TWO 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:

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

- |  |  |  |
|--|--|--|
| <input checked="" 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 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) \_\_\_\_\_

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g. Spill point coordinates

Measuring unit

Northing:	Easting:
LATITUDE	LONGITUDE
5.05013	6.58413
5.05033	6.58391

## 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
  - Farmlands [ ] ,m
  - Fish Farm/Pond [ ] ,m
  - Fishing net [ ] ,m
  - Others (specify). [ ] ,m
- NONE SEEN WITHIN VICINITY

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?

[N]

If yes to item 14, give brief description:

REPAIR WORK AND RECOVERY ACTIVITIES ARE ONGOING.

15. Was there any disruption to the investigation?

[Y]  [N]

Version 2018/01

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

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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
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**

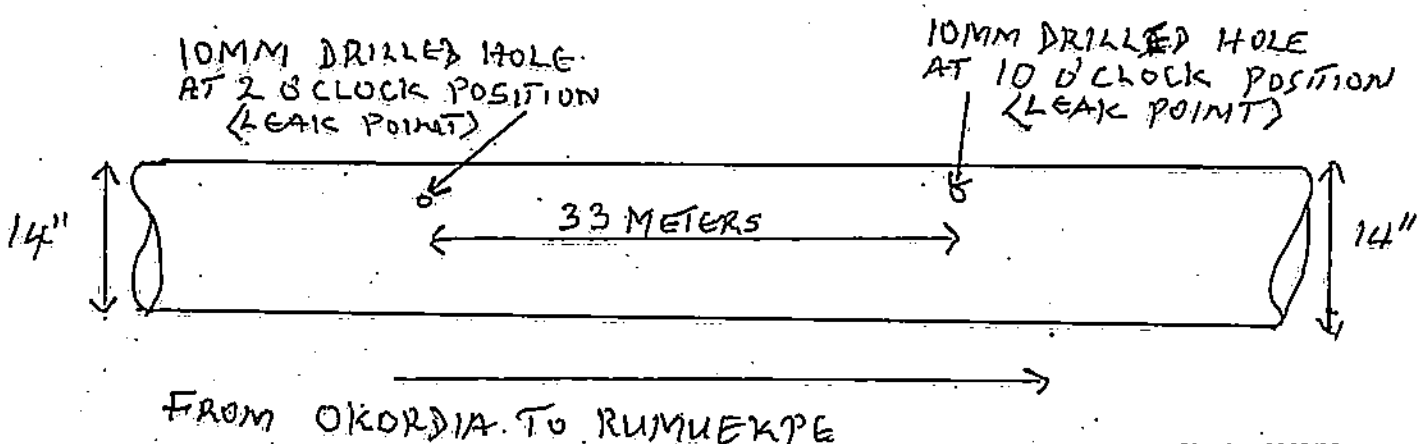
S/N	Nets/Ponds	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

**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 detailed 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 14" OKORDIA - RUMUEKPE PIPELINE AT ULA-1KATA SHOWING POSITIONS OF DRILLED HOLES.



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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

SW APTA CRED  
FOR COORDINATES LISTINGS

JIV_2233182_ULA IKATA					
PT_ID	LAT_Y	LONG_X	PT_ID	LAT_Y	LONG_X
SP1	5.05013	6.58413	205	5.05082	6.58386
SP2	5.05033	6.58391	206	5.05081	6.58391
217	5.05057	6.58385	207	5.05079	6.58397
218	5.05052	6.58386	208	5.05078	6.58397
160	5.05149	6.5829	209	5.05075	6.58389
161	5.05135	6.5828	210	5.05072	6.58386
162	5.05136	6.5831	211	5.05071	6.58384
163	5.05133	6.58312	212	5.05066	6.58384
164	5.05131	6.58314	213	5.05067	6.58379
165	5.05133	6.58314	214	5.05064	6.58374
166	5.05134	6.58312	215	5.05058	6.58382
168	5.05139	6.58311	216	5.05059	6.58384
169	5.05138	6.58313	219	5.05047	6.58391
170	5.05131	6.58318	220	5.0504	6.58395
171	5.0513	6.58321	221	5.05028	6.58406
172	5.05128	6.58325	222	5.05018	6.58413
173	5.05124	6.58315	223	5.05011	6.5842
174	5.05109	6.58329	224	5.05006	6.58421
175	5.05112	6.58334	225	5.05003	6.58417
176	5.05113	6.58333	226	5.05013	6.58406
177	5.05109	6.58331			
178	5.0511	6.5833			
179	5.05099	6.5834			
180	5.05097	6.58343			
181	5.05087	6.58353			
182	5.05087	6.58356			
183	5.05086	6.58361			
184	5.05086	6.58365			
185	5.05088	6.58369			
186	5.05092	6.58369			
187	5.05099	6.58365			
188	5.05104	6.58363			
189	5.05104	6.5836			
190	5.05105	6.58356			
191	5.05109	6.58351			
192	5.05111	6.58354			
193	5.05111	6.58361			
194	5.05108	6.58367			
195	5.05105	6.58372			
196	5.05109	6.58373			
197	5.05111	6.58378			
198	5.05111	6.5838			
199	5.05106	6.58385			
200	5.051	6.58388			
201	5.05094	6.58386			
202	5.05091	6.58385			
203	5.05089	6.58385			
204	5.05086	6.58388			

A handwritten signature or set of initials, possibly 'F. A.', written in black ink. The signature is stylized and somewhat cursive, with a horizontal line underneath the main part of the writing.

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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.51 Ha
- 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>220</u>	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

<u>NIL</u>	Barrels
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<b>c. Net Estimated Spilled Volume <math>V_{est}</math> (bbls)* =</b>	<u>534.68 BARRELS</u>
<b>Estimated Reported Volume** <math>V_{rep}</math> (bbls) =</b>	<u>535 BARRELS</u>

**\*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 volume 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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## 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

