

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2390249 JIV report S/N: 1030042

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

## A. GENERAL INFORMATION:

1. Fountain Incident Number: 2390249 2. Type of incident\* OIL SPILL  
3. Name of Location 14" OKORDIA - RUMUWERPE PIPELINE  
4. Name of nearest community ULA-IKATA 5. State: RIVERS 6. LGA AHOADA EAST  
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 Reported: 1<sup>ST</sup> JULY 2019  
b. Start date/time of investigation: 3<sup>RD</sup> JULY 2019 / 14:45 HRS  
c. Investigation End date: 5<sup>TH</sup> JULY 2019 Actual investigation duration, days: THREE (3) 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: THE THREE SPILL INCIDENTS (2390249, 2390307 AND 2390314) ALL OVERLAPPED WITHIN 10 METRES DISTANCE, AS SUCH THEY WERE ALL CAPTURED IN ONE JIV REPORT.

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

- Drilled hole       Hack saw cut       Tear ( \_\_\_\_\_ )  
 Complete Rupture       Inward dent,       Well head tampering  
 Failed Weld-on illegal hot tap valve       Failed Clamp,       Missing Pipeline/Flowline  
 Crude oil theft (illegal bunkering) point,       Saver-pit over flow       Third party tampering with Clamp  
 Third party tampering with valve setting       Bulging Outward       Third party tampering with flange,  
 Flare System/Bund wall failure       Cold vent       Surge vessel overflow,  
 Valve Failure       Relief valve failure       Accidental 3<sup>rd</sup> party equipment impact  
 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) Siltation d) construction e) Encroachment f) Fire, g) non leaking Theft point removal  
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g. Spill point coordinates

h. Measuring unit

WGS 84

Northing:	Easting:
SP1 = 5.051534	6.582759
SP2 = 5.051558	6.582733
SP3 = 5.051586	6.582709

## C. RISK ASSESSMENT

10. Type of environment:

Land    
  Swamp    
  Water    
  Seasonal swamp    
  Shoreline/Waterfront

i. Type of environment to which oil has spread:

*SEASONAL*

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

ii. Weather condition:

Rain    
  Sunny    
  Dry    
  Wet    
  Windy    
  Hot    
  Cool

11. Distance to Sensitive habitat within 100m radius

<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 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 WAS DONE BY CLAMPING.

15. Was there any disruption to the investigation?

[N]

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If yes to item 15 give brief description:

NOT APPLICABLE

16. Was JIV delayed? [Y] [N]

If yes to item 16 give brief description: NOT APPLICABLE

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

17. Structures / Properties

S/N	Type of Structures	Description	Size	Number	Comments
NONE WITHIN AREA OF IMPACT					

18. Crops/Economic Trees

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

19. Fish/Nets/Ponds

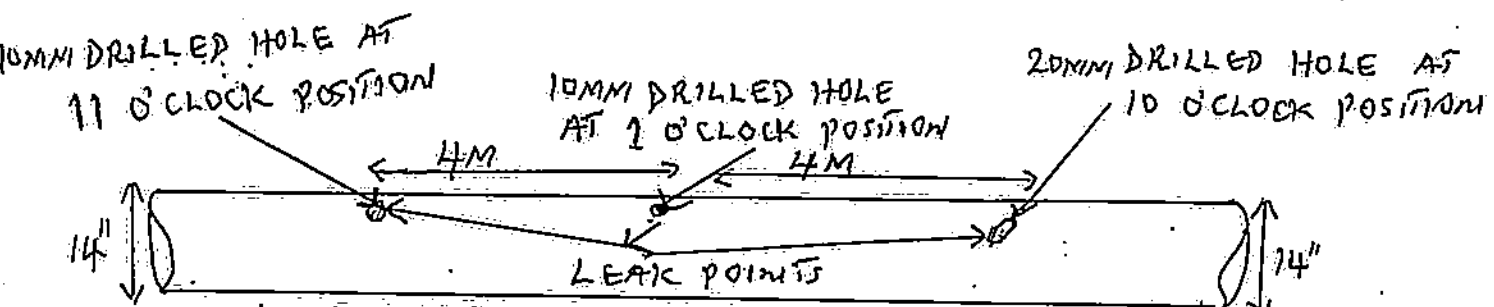
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

20. 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)

SECTION OF 14" OKORDIA - RUMUKEPE PIPELINE AT ULA-IKATA SHOWING 3 MOS' OF DRILLED HOLE BY UNKNOWN PERSON(S) AT DIFFERENCE POSITIONS.



FROM OKORDIA TO RUMUKEPE →

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

21. Impacted area boundary Coordinates (If more, Print and attach as an appendix) NGS 84

S/N	Northing	Easting
	5.05144	6.58309
	5.05129	6.58314
	5.05118	6.58323
	5.05114	6.58334
	5.05100	6.58338
	5.05088	6.58355
	5.05093	6.58365
	5.05095	6.58373
	5.05093	6.58373
	5.05084	6.58355
	5.05082	6.58346
	5.05082	6.58335
	5.05086	6.58333
	5.05107	6.58312
	5.05114	6.58304
	5.05131	6.58291
	5.05138	6.58286
	5.05142	6.58284
	5.051590	6.582677
	5.05164	6.58278
	5.05152	6.58288
	5.05145	6.58295

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact 0.21 ha
- Impact within SPDC R.O.W. YES
- Impact outside SPDC R.O.W. 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 $V_{est}$ (bbls)\* =

107.9 BARRELS

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

108 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 volume estimation or cause of spill:

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 ( $m^3$ ) x 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 column 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]:
- Shell Petroleum Development Company [SPDC]:
- *Separate DPR form has been filled out with same findings*

*Tick as applicable*

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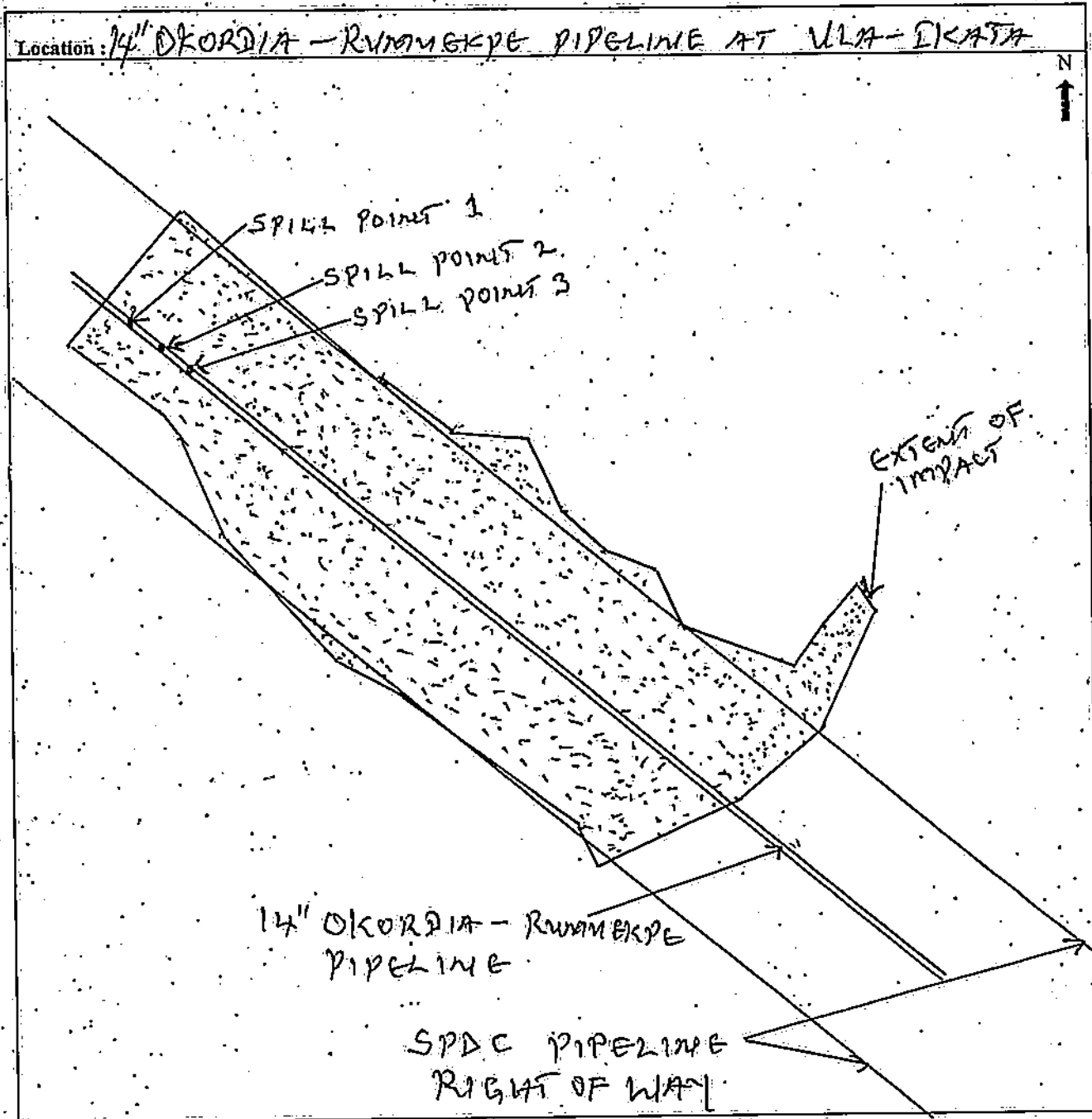
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f. Appendix f: Overview sketch of the site



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