

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2903033 JIV report S/N: 0000829

(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: 2903033 2. Type of incident\* OIL SPILL  
3. Name of Location 18" ASSA - RUMUEKPE PIPELINE  
ELELE ALIMINI  
4. Name of nearest community \_\_\_\_\_ 5. State: RIVERS 6. LGA EMDHUA  
7. Production Facility/Installation CRUDE OIL PIPELINE  
8. Asset Owner/Hub THE SHELL PETROLEUM DEVELOPMENT COMPANY OF  
NIGERIA LIMITED / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 30<sup>TH</sup> MARCH 2021  
b. Start date/time of Investigation: 31<sup>ST</sup> MARCH 2021 / 13:45 HRS  
c. Investigation End date: 1<sup>ST</sup> APRIL 2021 Day(s) on site: 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 ☐ Sand bag(s)

Additional observations around the spill point:

NOT APPLICABLE

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

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Smooth round-edge hole                                | <input type="checkbox"/> Rough-edge hole      | <input type="checkbox"/> Hack saw cut                                      |
| <input type="checkbox"/> Complete Rupture                                      | <input type="checkbox"/> Inward dent,         | <input type="checkbox"/> Well head tampering                               |
| <input checked="" 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"/> Tear (_____)  |   |  |
| <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) Siltation (d) Water Leak (e) Fire (f) Non-leaking theft point removal

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g. Spill Point Coordinates (\*Incidents <100m apart to be aggregated into one Joint Investigation Report)

h. Measuring unit

WGS 84

Northings:	Easting:
<u>5.05388</u>	<u>6.70296</u>
<u>5.05377</u>	<u>6.70293</u>

## C. RISK ASSESSMENT

### 10. Details of Environment

i. Type of environment where spill occurred (select one):

☒ Land ☐ Swamp ☐ Water ☐ Seasonal swamp ☐ Shoreline/Waterfront

ii. Type of environment to which oil has spread:

☒ Land ☐ Swamp ☐ Waterbody (specify) \_\_\_\_\_

iii. Weather condition

☐ Dry ☒ Wet ☐ Windy ☐ Hot

### 11. Distance to Sensitive habitat within 100m radius

<input type="checkbox"/> Government reserved and designated protected area	[ ,m]	} NONE SEEN WITHIN VICINITY
<input type="checkbox"/> Drinking water source	[ ,m]	
<input type="checkbox"/> Surface water <input type="checkbox"/> Borehole		
<input type="checkbox"/> Built up Area	[ ,m]	
<input type="checkbox"/> Residential Area <input type="checkbox"/> Commercial/Industrial Area		
<input type="checkbox"/> Farmlands	[ ,m]	
<input type="checkbox"/> Fish Farm/Pond	[ ,m]	
<input type="checkbox"/> Fishing net	[ ,m]	
<input type="checkbox"/> Others (specify) _____	[ ,m]	

### 12. Containment measures put in place:

☐ Booms ☐ Trench ☐ Dyke ☒ Pit ☒ Natural depression ☐ 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:

CRUDE OIL RECOVERY ACTIVITIES ONGOING. REPAIR WORK COMPLETED.

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15. Was there any disruption to the investigation?

[ Y ] [ ~~N~~ ]

If yes to item 15 give brief description:

NOT APPLICABLE

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

Reason(s):

- ☐ Delayed Community Access Approval ☐ Security Challenges ☐ Access constraint due to terrain  
☒ Others (specify) 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
<u>NONE WITHIN AREA OF IMPACT</u>					

18. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
<u>1</u>	<u>PALMTREE</u>	<u>✓</u>	<u>—</u>	<u>—</u>	<u>12</u>	<u>IMPACTED BY SPILL</u>

19. Fish/Nets/Ponds

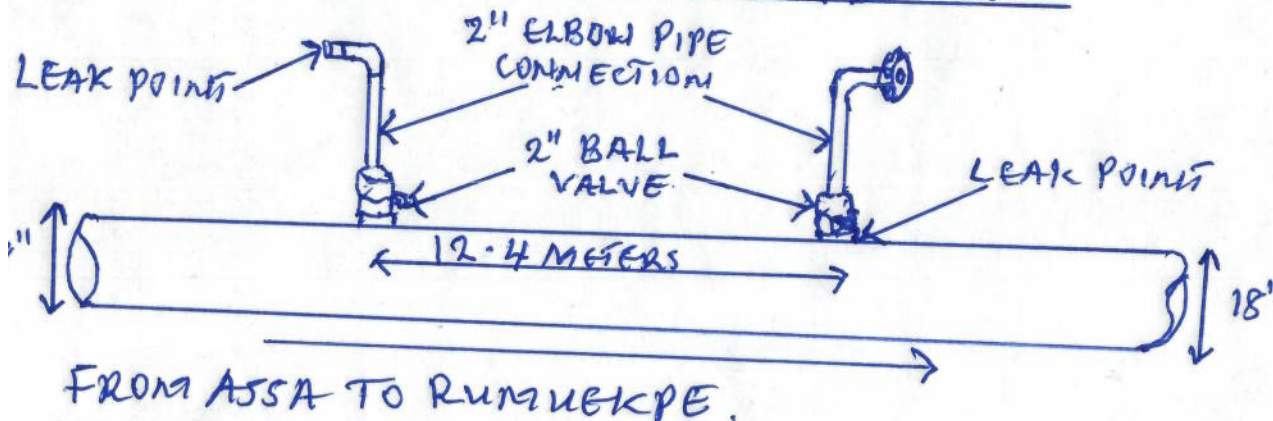
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

20. Others (Specify) e.g. Animal Traps

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

E. GRAPHIC DESCRIPTION OF LEAK POINT (while detailed description of the leak point should be contained in the leak report, overview sketch of the site should be added as appendix 1)

SECTION OF 18" ASSA - RUMUEKPE PIPELINE AT ELELE ALIMINI  
SHOWING TWO NOS OF CRUDE OIL TIGHT POINTS INSTALLED AT  
12 O'CLOCK POSITIONS BY UNKNOWN PERSONS





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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 Appendix)

[illegible]

## JIV ALONG 18" ASSA TO RUMUEKPE PIPELINE AT ELELE ALIMINI FID: 2903033

PNT_ID	LONG	LAT	PNT_ID	LONG	LAT
337	6.70301	5.05381	380	6.7036	5.05331
338	6.70302	5.05389	381	6.70365	5.05334
339	6.70298	5.05389	382	6.70367	5.05331
340	6.70296	5.05384	383	6.70355	5.05316
341	6.70294	5.05385	384	6.70356	5.05316
342	6.70295	5.05402	385	6.70351	5.05333
343	6.70299	5.05405	386	6.70338	5.0533
344	6.70307	5.05396	387	6.70331	5.05324
345	6.70327	5.05394	388	6.70339	5.05314
346	6.70326	5.05399	389	6.70345	5.05313
347	6.70339	5.054	390	6.70345	5.05308
348	6.70351	5.05402	391	6.70346	5.05293
349	6.70355	5.05402	1	6.70348	5.0529
350	6.70359	5.05402	2	6.70353	5.05283
351	6.70361	5.054	3	6.70346	5.05282
352	6.70362	5.05396	4	6.70328	5.05274
353	6.70358	5.05393	5	6.7033	5.05284
354	6.70357	5.05389	6	6.70333	5.0529
355	6.70355	5.05389	7	6.70336	5.05291
356	6.70348	5.05393	8	6.70339	5.05309
357	6.70349	5.05382	9	6.7033	5.05309
358	6.70344	5.05378	10	6.70322	5.05315
359	6.70338	5.05377	11	6.70312	5.0531
360	6.70333	5.05378	12	6.703	5.05316
361	6.70333	5.05372	13	6.70301	5.05324
362	6.70339	5.05371	14	6.70298	5.05325
363	6.70339	5.05361	15	6.70294	5.05333
364	6.70341	5.05359	16	6.70284	5.0533
365	6.70341	5.05353	17	6.70284	5.05335
366	6.70335	5.05355	18	6.70289	5.05339
367	6.70332	5.05365	19	6.70288	5.0534
368	6.70331	5.05368	20	6.70283	5.05342
369	6.70324	5.05361	21	6.70286	5.05347
370	6.70316	5.05364	22	6.70289	5.05359
371	6.70314	5.05359	23	6.70296	5.05363
372	6.70324	5.05349	24	6.703	5.05363
373	6.70326	5.05352	25	6.70301	5.05371
374	6.70329	5.05349	26	6.70305	5.05382
375	6.70327	5.05343			
376	6.70339	5.05335			
377	6.7035	5.0534			
378	6.70357	5.05337			
379	6.70355	5.05332			

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.54 HA
- Impact within SPDC R.O.W YES
- Impact outside SPDC R.O.W YES

\* Round off to 2 decimal places if area is  $\geq 100 \text{ m}^2$  or to 4 decimal places if area is  $< 100 \text{ m}^2$  (e.g. 14.55, 0.0051, 0.0009)  
\* Express in Hectares (Ha)

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

Recovered oil $V_{\text{recJ}}$ :	<u>62</u>	Barrels
-----------------------------------	-----------	---------

Controlled recovery/evacuation from source with no impact to environment:

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

222.61 BARRELS

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

223 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:

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  $\text{m}^3$  to barrels is Volume ( $\text{m}^3$ )  $\times 6.29$ ; \*\*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 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 <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

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]: ☒
- The Shell Petroleum Development Company [SPDC]: ☒
- *Separate DPR form has been filled out with same findings* ☒
- *Separate NOSDRA form has been filled out with same findings* ☒
- *Separate SME form has been filled out with same findings* ☒

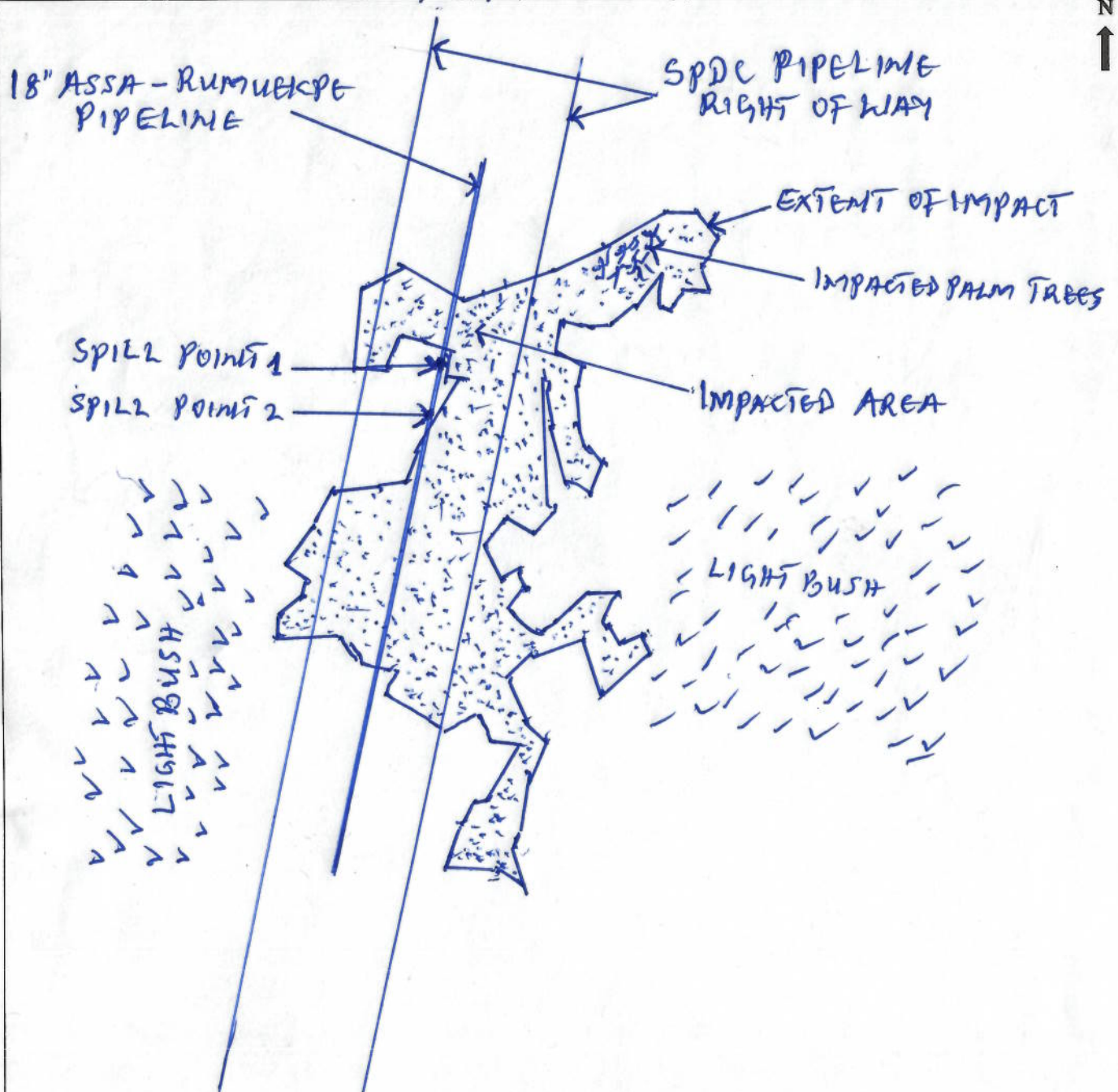
*Tick as applicable*

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## f. Appendix 1: Overview sketch of the site

Location: 18" ASSA - RUMUEKPE PIPELINE AT ELELE ALIMINI



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