

# JOINT INVESTIGATION REPORT

INCIDENT NO: 3030308 JIV report S/N: 0000966

(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: 3030308 2. Type of incident: OIL SPILL  
3. Name of Location: 4" MORIVER WELL SBT FLOWLINE  
4. Name of nearest community: ODAGWA 5. State: RIVERS 6. LGA: ETCHE  
7. Production Facility/Installation: CRUDE OIL FLOWLINE  
8. Asset Owner/Hub: THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / LAND EAST HUB.

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 19<sup>TH</sup> SEPTEMBER 2021  
b. Start date/time of Investigation: 23<sup>RD</sup> SEPTEMBER 2021 / 13:20 HRS  
c. Investigation End date: 23<sup>RD</sup> SEPTEMBER 2021 Day(s) on site: ONE DAY  
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:

LONG STRETCH OF AN EXCAVATED TRENCH BY UNKNOWN PERSON(S) WAS OBSERVED.

## 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 type="checkbox"/> Failed Weld-on illegal hot tap valve       | <input type="checkbox"/> Failed Clamp,        | <input checked="" 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"/> 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

Version 2020/01

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

# JOINT INVESTIGATION REPORT

000966

INCIDENT NO: 3030308 JIV report S/N:

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

h. Measuring unit

WGS 84

	Northing:	Easting:
SP <sub>1</sub>	4.98958	7.16204
SP <sub>2</sub>	4.98932	7.16179

## 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 <sup>SEASONAL</sup>       Waterbody (specify) \_\_\_\_\_

iii. Weather condition

Dry       Wet       Windy       Hot

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

- Government reserved and designated protected area [ NIL ,m]
- Drinking water source [ NIL ,m]
  - Surface water       Borehole
- Built up Area [ NIL ,m]
  - Residential Area       Commercial/Industrial Area
- Farmlands [ ✓ ,m] IMPACTED BY SPILL
- Fish Farm/Pond [ NIL ,m]
- Fishing net [ NIL ,m]
- Others (specify) \_\_\_\_\_ [ NIL ,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:

NOT APPLICABLE

Version 2020/01

# JOINT INVESTIGATION REPORT

INCIDENT NO: 3030308 JIV report S/N: 0000966

15. Was there any disruption to the investigation? [Y] [X]

If yes to item 15 give brief description:

NOT APPLICABLE

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

Reason(s): NOT APPLICABLE

- Delayed Community Access Approval  Security Challenges  Access constraint due to terrain  
 Others (specify) \_\_\_\_\_

## 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
1	<u>PALM TREE</u>	<u>✓</u>	<u>—</u>	<u>✓</u>	<u>6</u>	<u>IMPACTED BY SPILL.</u>
2	<u>RAFFIA PALM</u>	<u>—</u>	<u>—</u>	<u>✓</u>	<u>8</u>	
3	<u>CASSAVA</u>	<u>FEW</u>	<u>—</u>	<u>FEW</u>	<u>FEW</u>	

19. Fish/Nets/Ponds

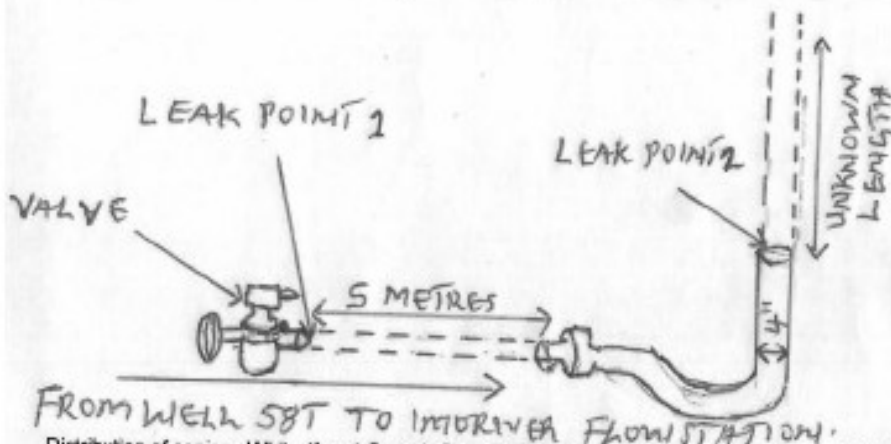
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

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 4" IMO RIVER WELL SBT FLOWLINE AT ODAGWA SHOWING POSITIONS OF MISSING FLOWLINE.



FROM WELL SBT TO IMO RIVER FLOWSTATION.



FID: 2021\_3030308

PNT_ISD	LAT	LONG
	1	4.9896 7.162
	2	4.98966 7.16195
	3	4.98971 7.16199
	4	4.98968 7.16203
	5	4.98975 7.16209
	6	4.98981 7.16216
	7	4.98989 7.16221
	8	4.98986 7.1623
	9	4.98988 7.16235
	10	4.98988 7.16243
	11	4.98986 7.1625
	12	4.98981 7.16242
	13	4.98979 7.16234
	14	4.98978 7.1622
	15	4.98965 7.1621
	16	4.98959 7.16214
	17	4.98956 7.16216
	18	4.98953 7.16215
	19	4.98955 7.16203
SP 1		4.98959 7.16204
	40	4.98943 7.1619
	41	4.98915 7.16172
	42	4.9891 7.16181
	43	4.98908 7.1619
	44	4.98911 7.16203
	45	4.9891 7.16207
	46	4.98901 7.1621
	47	4.98891 7.16217
	48	4.98877 7.16231
	49	4.98874 7.16218
	50	4.98857 7.1623
	51	4.98852 7.16237
	52	4.9885 7.16245
	53	4.98854 7.16249
	54	4.98853 7.16258
	55	4.98849 7.16263
	56	4.98842 7.16266
	57	4.98836 7.16268
	58	4.98829 7.16269
	59	4.98823 7.16274
	60	4.98812 7.16277
	61	4.98819 7.1626
	62	4.98846 7.16235
	63	4.98853 7.16225
	64	4.98822 7.16197
	65	4.98836 7.16182

*Handwritten signature*

FD:- 2021-3030308

66	4.98873	7.16194
67	4.98878	7.16197
68	4.98894	7.16185
69	4.98895	7.16183
70	4.98899	7.16179
71	4.98903	7.16176
72	4.98915	7.16165
73	4.98944	7.16186
SP 2	4.98932	7.16179

*Ram b*

# JOINT INVESTIGATION REPORT

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.52 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 ( $V_{rec}$ ):

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 $V_{Est}(\text{bbls})^* =$

50.97 BARRELS

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

51 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 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]:
- 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: 4" IMORIVER WELL 58T FLOWLINE AT ODAGWA

