

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1934452 JIV report S/N: 1102

(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: 1934452 2. Type of incident\* OIL SPILL  
3. Name of Location AGBAYA WELL-1 WELLHEAD  
4. Name of nearest community AGBAYAMA 5. State: BAYELSA 6. LGA EKEREMOR  
7. Type of Production facility/Installation WELLHEAD  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED/SWAMP WEST

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date of incident: 25<sup>TH</sup> SEPTEMBER, 2017  
b. Start date/time of investigation: 28<sup>TH</sup> SEPTEMBER, 2017 AT 1350HRS  
c. Investigation End date: 28<sup>TH</sup> SEPT. 2017 Actual investigation duration, days: ONE DAY  
d. Description of spill point environment

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Firm soil                           | <input type="checkbox"/> Loose soil        | <input type="checkbox"/> Recently excavated area |
| <input type="checkbox"/> Under water                         | <input checked="" type="checkbox"/> Swampy | <input type="checkbox"/> Exposed pipe surface    |
| <input checked="" type="checkbox"/> Well Platform (on Water) | <input type="checkbox"/> Drill Rig         |  |

Additional observations around the spill point: DURING ASSESSMENT, THE JOINT INVESTIGATION TEAM OBSERVED THAT THE WELLHEAD SURVEY CAP, BEAN BOX AND CAMERON CONTROL UNIT ON AGBAYA WELL-1 WERE REMOVED BY UNKNOWN PERSONS. THE MASTER AND WIND VALVES WERE ALSO TAMPERED WITH. THE LEAK HAS STOPPED AS AT THE TIME OF THIS INVESTIGATION.

## 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 checked="" 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 checked="" type="checkbox"/> Third party tampering with valve setting | <input type="checkbox"/> Bulging Outward  | <input checked="" 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 checked="" type="checkbox"/> Others(specify) <u>ILLEGAL REMOVAL OF CCU, BEAN BOX AND SURVEY CAP.</u> |  |

## f. Incident caused by:

- Third party interference (Sabotage ; crude theft ; Line theft ; Accidental 3<sup>rd</sup> party damage   
 Operational  Mystery spills  Others(specify): \_\_\_\_\_

\*This can be: a) Oil Spill b) Drilling fluid/Chemical c) Siltation d) construction e) Encroachment f) Fire,

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g. Spill point coordinates

h. Measuring unit

KGS 84 (DECIMAL - DEGREE)

Northing: (LATITUDE)	Easting: (LONGITUDE)
<u>4.94090</u>	<u>5.53529</u>
<del> </del>	<del> </del>
<del> </del>	<del> </del>
<del> </del>	<del> </del>

## 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

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?

[Y]  [N]

if yes to item 14, give brief description:

NOT APPLICABLE

15. Was there any disruption to the investigation?

[Y]  [N]

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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
1.	RAFFIA PALM	---	---	FEW	FEW	OIL STAIN
2.	HARD WOOD	---	FEW	---	FEW	OIL STAIN HARD WOOD
	/	/	/	/	/	/

**18. Fishing Nets/Fish Ponds**

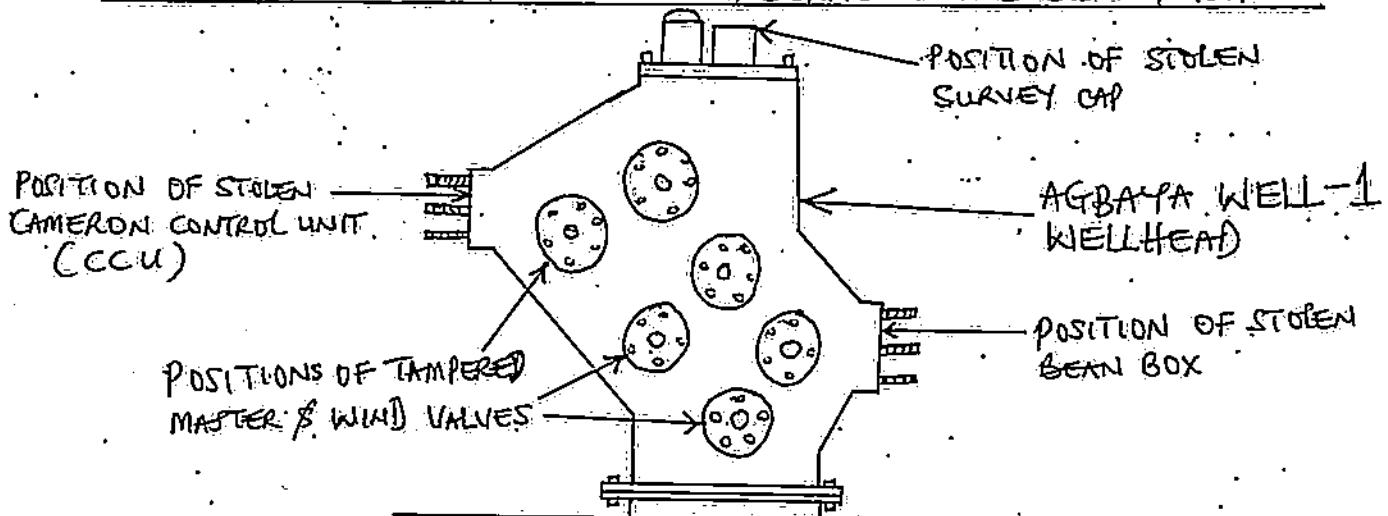
S/N	Nets/Ponds	Description	Quantity/Size	Comments
	NONE WITHIN AREA OF IMPACT			

**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)**

SECTION OF AGBAYA WELL-1 WELLHEAD AT AGBAYAMA AXIS, SHOWING POSITIONS OF STOLEN CCU, BEAN BOX AND SURVEY CAP.





# APPENDIX 1

## IMPACTED AREA COORDINATES FOR AGBAYA WELL-1 WELLHEAD @ AGBAYAMA 1934452

PT_ID	LAT_Y	LONG_X
SP	4.9409	5.53529
349	4.94101	5.53554
350	4.94115	5.5354
351	4.94118	5.53523
352	4.94115	5.53512
353	4.9411	5.53501
354	4.94103	5.53496
355	4.94096	5.53499
356	4.94097	5.53503
357	4.94069	5.53507
358	4.94059	5.53515
359	4.94052	5.5352
360	4.94046	5.53522
361	4.94037	5.53524
362	4.9401	5.53526
363	4.9399	5.53533
364	4.93999	5.53556
365	4.94039	5.53589
366	4.94044	5.53623
367	4.94041	5.53665
368	4.94047	5.53679
369	4.94061	5.53705
370	4.94068	5.53721
371	4.94072	5.53733
372	4.94088	5.53761
373	4.94128	5.53824
374	4.94149	5.53867
375	4.94173	5.5392
376	4.94186	5.53955
377	4.94081	5.53724
0	4.941676	5.53922
1	4.94085	5.537268
2	4.94132	5.538508
3	4.94106	5.538101
4	4.941753	5.539187
5	4.941526	5.538647
6	4.941313	5.538224
7	4.940847	5.537621
8	4.940497	5.537382
9	4.94048	5.537335
10	4.940673	5.537338
11	4.94063	5.537205
12	4.94058	5.537065
13	4.940427	5.536812
14	4.94035	5.536675
15	4.940487	5.536226
16	4.94044	5.535906
17	4.939921	5.535589
18	4.939831	5.535283
19	4.940071	5.535196
20	4.940354	5.535196
21	4.94048	5.535133
22	4.940547	5.53507
23	4.940673	5.534986
24	4.941236	5.535133
25	4.941246	5.535186
26	4.941386	5.535126
27	4.940943	5.534866
28	4.94103	5.534857
29	4.94116	5.5349
30	4.941373	5.535083
31	4.941073	5.535583
32	4.941276	5.535463

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact 2.00 Ha
- Impact within R.O.W YES
- Impact outside R.O.W NO

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

Recovered oil $V_{recd}$ :	<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)\* =

7.11 BBLs

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

8 BBLs

#### \*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:

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  $m^3$  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 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 JIV 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

