INCIDENT NO: 1713683 JIV report S/N:

0000183

(Note: As practicable as possible the JIT report is to be signed in the field by all the participating parties) A. GENERAL INFORMATION: 1. Spill incident Number: 1713683 2. Type of incident* OIL SPILL 3. Name of Location 12" MORIVER - OGALE PIPELINE 4. Name of nearest community OWAZA 5. State: ABIA 6. LGA UKWA WE ST 7. Type of Production facility/Installation OIL PIPELINE 8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LTD (SPOC) **B. INCIDENT INFORMATION:** 9. Details of incident a. Date of incident: 18TH SEPTEMBER 2016 b. Start date/time of investigation: 21ST SEPTEMBER 2016 /13 50 HRS c. Investigation End date: 2) STSEPTEMBER 20 Actual investigation duration, days: ONE (I) DAY d. Description of spill point environment Loose soil Recently excavated area ☐Firm soil Under water □ Swampy Exposed pipe surface ☐ Well Platform (on Water ☐ DrillRig Additional observations around the spill point: T#E JOINT INVESTIGATION TEMM OBSERVED 3 NOS OF 2" VALVES INSTALLED FROM EACH AT 30cm 12 O'CLOCK UNKNOWN PERSONS POSITION, BY e. Description of leak point (tick as applicable); ☐Drilled hole Hack saw cut Tear (☐ Well head tampering ☐ Inward dent. Complete Rupture Failed Clamp. ☐ Missing Pipeline/Flowline Failed Weld-on illegal hot tap valve 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, Cold vent ☐Flare System/Bund wall failure ☐ Surge vessel overflow. Accidental 3rd party equipment impact ☐ Valve Failure ☐ Relief valve failure □Others(specify)

f. Incident caused by:

☐ Operational

Third party interference (Sabotage□; crude theft□; Line theft□; Accidental 3rd party damage□)

Others (including Mystery spills)

^{*}This can be: a) Oil Spill b) Drilling fluid Chemical c) Siltation d) construction (e) Encroachment () Fire,

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g. S	Spill point coordi				,
h. N	Measuring unit	WG WG	584		
	Northing:	LATITUDE		Easting: LONGIT	USE
	4	- 94354		7.184	79
	•				
		/VO		1	
				/ 4	
C. RIS	K ASSESSME	NT			
10.	Type of enviror	iment:			•
	Land	□Swamp	□Water	Seasonal swamp	Shoreline/Waterfront
	i. Type o	of environment to wh	ich oil has spread:	-	
			-	_	
	Land	☐ Swamp	□Water	☐River (identify)	
	ii. Weath	er condition			
	□Rain	□Sunny √	Z Dry □wet	□Windy □Hot	□cool
11.	Distance from t	he nearest sensitive	habitat		
	☐ Governmer ☐ Drinking w ☐ Built up are ☐ Farmlands ☐ Fish Farm/ ☐ Fishing net ☐ Others (spe	Pond	nated protected are	a [,m] [,m] [,m] [,m] [,m]	NONE SEEN
12.	Containment m	easures put in place;			
	Booms	□т₁	ench Dyke	Natural depression	√Pit □None
	Others:				·
. 13.	Any pictures or	video coverage?		[N] [M]	
14.	Further respon	se/repair initiated as	at the time of JIV?	. JY [N]	
If yes to	item 14. give brief			LAMPING	·

[Y]

15. Was there any disruption to the investigation?

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If yes to item 15 give brief descript	ion:		
		-	
NUI	APPL	$I \subset A$	BLE

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

16. Structures	s / Properties
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S/N	Type of Structures	Description	Size	Number	Comments
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$\Box L$	NOINC IN	11 111	, , , , , ,	<u> </u>	MINCI
					J

17. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
1	PALM TREES	<u> </u>		MATURES		IMPALTED

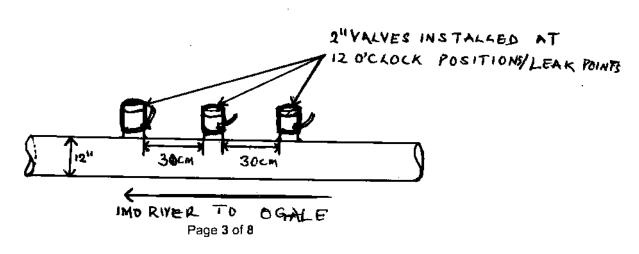
18. Fishing Nets/Fish Ponds

S/N	Nets/Ponds	Description	Quantity/Size	Comments
	INNE	Jeliotiliai X		T WARK CT
	IUNE.	WITHIN A	4 CA (OF IMPACI

19. Others (Specify) i.e. Animal Traps

S/N	Others	Description	Quantity/Size	Comments
				2400
Λ	$1 \wedge \lambda I = \lambda$	111111111111111111111111111111111111	F-1	F IMPACI
\Box	TONE			7 11 10 1
7				

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) A SECTION OF 12" IMO RIVER - OGALE PIPELINE SHOW AT OWAZA SHOWING 3 NOS OF 2" VALVES INSTALLED 30CM APART FROM EACH AT 12 OCLOCK POSITIONS BY UNKNOWN PERSONS.



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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
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	cy'	21 09 12016
	5/	2900
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	•	•

12" IMORIVER - OGALE PIPELINE AT OWAZA SPILL SITE IMPACTED AREA COODINATES INCIDENT NUMBER: 1713683

452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473	4.9435 4.94348 4.94346 4.94347 4.94348 4.94341 4.94336 4.94355 4.94369	7.18466 7.1845 7.18445 7.18431 7.18426
454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471	4.94348 4.94347 4.94348 4.94341 4.94336 4.94336 4.94355	7.18473 7.18471 7.18466 7.1845 7.18445 7.18431 7.18426
455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472	4.94346 4.94347 4.94348 4.94341 4.94336 4.94336	7.18471 7.18466 7.1845 7.18445 7.18431 7.18426 7.18428
456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472	4.94347 4.94348 4.94341 4.94336 4.94336 4.94355	7.18466 7.1845 7.18445 7.18431 7.18426 7.18428
457 458 459 460 461 462 463 464 465 466 467 468 469 470 471	4.94348 4.94341 4.94336 4.94336 4.94355	7.1845 7.18445 7.18431 7.18426 7.18428
458 459 460 461 462 463 464 465 466 467 468 469 470 471 472	4.94341 4.94336 4.94336 4.94355	7.18445 7.18431 7.18426 7.18428
459 460 461 462 463 464 465 466 467 468 469 470 471	4.94336 4.94336 4.94355	7.18431 7.18426 7.18428
460 461 462 463 464 465 466 467 468 469 470 471	4.94336 4.94355	7.18426 7.18428
461 462 463 464 465 466 467 468 469 470 471	4.94355	7.18428
462 463 464 465 466 467 468 469 470 471		
463 464 465 466 467 468 469 470 471 472	4.94369	7 10277
464 465 466 467 468 469 470 471 472		1.162//
465 466 467 468 469 470 471 472	4.94368	7.1839
466 467 468 469 470 471 472	4.94373	7.18389
467 468 469 470 471 472	4.94377	7.18389
468 469 470 471 472	4.94366	7.18393
469 470 471 472	4.94359	7.18424
470 471 472	4.94361	7.18427
471 472	4.94361	7.18429
472	4.94356	7.18446
	4.9435	7.18464
473	4.9437	7.18477
4/3	4.94371	7.18481
474	4.94329	7.18449
475		7.18448
476	4.94323	7.18438
477		
478	4.94323	7.18436

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G. INCIDENT INFORMATION:

Total calculated area of impact Impact within R.O.W Impact outside R.O.W

b. Volume of oil recovered before completion of JIV (Vrest):

Recovered oil V_{recJ}: Barrels

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

Barrels NIL

Net Estimated Spilled VolumeV_{Eq}(bbls)* =

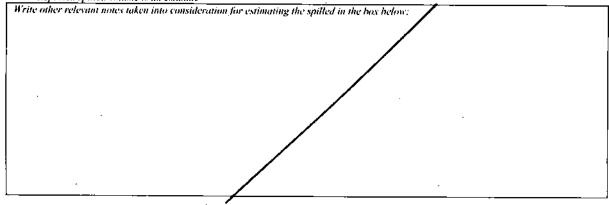
98.93BBCs 99BARRELS

Estimated Reported Volume** Vrep(bbls)=

*Notes:

Volume estimation was done using an excel based tool (see anached for details on the calculation)

Reported spilled volume is an estimate



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' to burrels is Volume (m3) 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 I 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 AV procedure to use appropriate steps for volume estimation, record the calculation in a plain sheef of paper and attack to the AV 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:₺2~
- Department of Petroleum Resources [DPR] →
- National Oil Spill Detection and Response Agency [NOSDRA]:
- State Ministry of Environment |SME|:\2
- 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

