OIH

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO: 4096
TO BE ANSWERED ON 18.08.2025

Contamination of groundwater in Barmer

4096. SHRI UMMEDA RAM BENIWAL:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) the details of the funds received by the Central Pollution Control Board under environment protection and environment compensation during the previous years, year and State/UT-wise including Rajasthan;
(b) the details of the funds utilised during the said period, State/UT and item-wise including Rajasthan;
(c) the steps taken by the Government to prevent the contamination of groundwater and surrounding areas in Barmer Lok Sabha constituency that caused by the disposal of waste from crude oil production at the Mangala Processing Terminal through borewells by Vedanta Limited, which adversely affecting the health of the local population; and
(d) whether any inspection has been carried out to check pollution control/complaints in Barmer district during the last ten years and if so, the details thereof location-wise along with the inspection Report thereof?

ANSWER
MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) & (b) : The Hon'ble Supreme Court of India in the matter of 13029 of 1985, M.C. Mehta Vs UOI issued directions and imposed 1% Environmental Protection Charge (EPC) on diesel vehicles with engine capacity of 2000 cc and above which will be registered in Delhi-NCR as given in Hon'ble Supreme Court Order dated 12 Aug 2016.

A total of Rs.538 crore has accrued in the EPC fund account as on 17 .07.2025, out of which Rs. 194.83 crores **(Annexure-I)** have been disbursed as on 21.07.2025, and Rs. 201.6 crores is allocated for sanctioned projects and activities and Rs. 54 crore has been earmarked as performance grants for FY 2025-26 under CPCB guidelines for providing gap funding support to 19 NCR cities of are Greater Noida, Dharuhera, Gurugram, Sonipat, Bharatpur, Muzaffarnagar, Bulandshahr, Panipat, Charkhi Dadri, Bahadurgarh, Baghpat, Hapur, Bhiwani, Jind, Narnaul, Karnal, Palwal, Nuh and Bhiwadi.

Details of funds sanctioned to Urban Local Bodies (ULBs) under EPC funds for road construction/ repair works, procurement of MRSM/ ASG etc are enclosed as **Annexure-II.** The status of fund release for gap funding support for implementation of clean air city action plan to 16 NCR cities out of 19 NCR cities under EPC funds is enclosed as **Annexure-III.**

Environmental Compensation (EC) funds are collected in compliance of the directives issued by the Hon'ble National Green Tribunal (NGT). As of now, a total of Rs. 620.6 Crores has accrued in the NGT EC account. Out of this Rs. 80.82 Crores has been utilized, while Rs. 138.38 Crores has been committed towards 24 sanctioned projects and ongoing activities and Rs.284.18 crores is held in sub judice accounts as per Hon'ble NGT direction. The utilization of NGT EC funds has been stopped after the Hon'ble NGT order dated 21.01.2025 in the matter of OA No. 638/2023. Details of the utilization of NGT EC funds under the specific activities and project wise status / list of 67 projects is placed as **Annexure-IV.**

(c) & (d): The oil company M/s Vedanta Ltd (Cairn Oil & Gas) operating at Mangala Processing Terminal (MPT) in Barmer District of Rajasthan is engaged in the production of Crude Oil & Natural Gas through underground exploration.

During oil extraction from underground reservoirs, water is also extracted which is a salty water and the same is treated to remove the physical impurities and is further reinjected into the same oil reservoir to help/ maintain pressure within the reservoir. Additionally, Reject water (water that is not suitable for reinjection into the oil reservoir) is injected into abandoned wells at depth greater that 1000 meters, well below the fresh water aquifers, further ensuring that no contamination reaches the local water sources.

In the Mangala field the fresh water aquifer is located between 40-150 meters depth whereas hydrocarbon reservoir is approximately 1000 meters or deeper. Between these two layers lies an 850 meters thick impervious layer exists which acts as a natural barrier preventing inter-mixing between fresh water aquifer and hydrocarbon reservoir.

During the oil exploration, hazardous waste i.e. drill cutting mud, sludge containing oil, drilling mud containing oil are generated which is disposed in captive secured landfill of Mangala Processing Terminal.

The industry is being inspected regularly by Rajasthan State Pollution Control Board to ensure compliance of conditions of Consent to Operate & authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Inspections of M/s Vedanta Ltd (Cairn Oil & Gas), Mangala Processing Terminal (MPT) have been carried out to check pollution control/complaints in Barmer District. The inspection reports of such inspections conducted during the last ten years are enclosed as **Annexure-V.**

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Annexure-I

Details of Disbursal of EPC Funds

Head	Amount
Financial assistance for setting up of pellet	13.78 crore
Smog Tower	38.23 crore
Technical studies/projects	17.84 crore
Clean air campaign and field visits	5.15 crore
Project related to laboratory infrastructure	6.77 crore
Project related to CAAQMS	27.9 crore
Infrastructure projects (road/pavement, MRSM, ASG)	26.29 crore
Gap funding guidelines	56.74 crore
Miscellaneous (stipend, infrastructure for office, expenditure for meeting/workshop, bank charges etc.)	2.13 crore
Total	194.83 crore

Annexure-II

Details of CPCB support to ULBs for road construction/ repair works, procurement of MRSM/ ASG etc

S. No.	State	ULB/Agency	Work/Purpose	Sanctioned Amount (Rs.)	Released Amount (Rs.)
	Uttar Pradesh	Ghaziabad Municipal Corporation (GMC)	8 road construction projects	13.37 crore	13.37 crore
		UPPCB	Procurement of 16 Mechanical Road Sweeping Machines (MRSMs) and 10 Anti-smog guns (ASGs)	12 crore	3.52 crore
		GMC	Procurement of 1 MRSM and 10 ASGs	7.28 crore	4.84 crore
		New Okhla Industrial Development Authority (NOIDA Authority)	Procurement of 4 MRSMs and 5 ASGs	5.60 crore	-
		Meerut Municipal Corporation (MMC)	12.07 km (15 roads) road construction/repair work	15.60 crore	-
				58.85 crore	21.73 crore
	Haryana	Municipal Corporation Faridabad (MCF)	Procurement of 10 MRSMs and 10 ASGs	8.05 crore	-
			16 km road construction and 2.5 km paving works	27.1 crore	-
				35.15 crore	-
	Delhi	Municipal Corporation of Delhi (MCD)	18 road construction/paving works	4.93 crore	2.46 crore
		New Delhi Municipal Corporation (NDMC)	Procurement of 5 MRSMs	14.3 crore	-
				19.23 crore	2.46 crore
	Rajasthan	Municipal Corporation Alwar	Vehicles for collection of MSW	4.27 crore	2.1crore
				4.27 crore	2.1 crore
Total for Delhi-NCR				112.5 crore	26.29 crore *

Note: Works are awarded following due tendering process. 50% of sanctioned funds are released on issuance of work order and remaining 50% on completion of activity.

* - Release of funds of Rs. 7.8 cr to MMC (15 nos. of Roads) and Rs. 0.81 cr GMC (5 ASGs) is under process.

Annexure-III

Status of fund released to 16 cities under EPC for gap funding

S. No	City	Sanctioned amount (Rs. in crore)	Release Amount (Rs. in crore)	Date of sanction	Date of Fund Release	Components in the Proposal
1.	Bhiwadi	4.80	2.40	29/04/2025	03/07/2025	1 MRSM, 2 ASG, 35 auto tippers, 1 road Interlocking works (0.85 km)
2.	Bharatpur	7.54	3.77	29/04/2025	03/07/2025	2 ASG, 1 MRSM, 9 road /pavement Construction works (4.88 km)
3.	Greater Noida	3.59	1.79	29/04/2025	03/07/2025	4 ASG, 1 MRSM
4.	Hapur	8.10	4.05	29/04/2025	03/07/2025	1 ASG, 8 Road side interlocking works (10.2 km)
5.	Bahadurgarh	5.80	2.90	29/04/2025	21/07/2025	1 ASG, 1 MRSM, 4 Road/pavement repair works (9.5 km)
6.	Bhiwani	4.98	2.49	29/04/2025	21/07/2025	1 ASG, 1 MRSM, 1 Pavement construction (2.05 km)
7.	Charkhi-Dadri	4.47	2.23	29/04/2025	21/07/2025	1 ASG, 1 MRSM, 2 Road Construction works (1.83km)
8.	Gurugram	34.89	17.44	29/04/2025	03/07/2025	20 ASG, 20 Tractor trolley with ASG, 1 Construction of Footpath and interlocking tiles (8kms), 5 C&D waste collection centre/transfer points, 1 C& D waste processing plant (400TPD), 20 EV charging stations
9.	Jind	4.50	2.25	29/04/2025	03/07/2025	2 ASG, 6 Pavement Construction works (8.97km)
10.	Karnal	4.71	2.35	29/04/2025	21/07/2025	3 ASG, 2 MRSM, 3 Construction of onside berms of roads (1.55km)
11.	Narnaul	4.45	2.23	29/04/2025	03/07/2025	10 road Construction works (7.71 km), 1 ASG
12.	Nuh	4.48	2.24	29/04/2025	03/07/2025	1 ASG, 1 EV charging station, 9 road Construction works (4.6km)
13.	Palwal	4.00	2.00	29/04/2025	03/07/2025	3 ASG, 2MRSM, 1 C& D waste processing plant (40TPD)
14.	Panipat	6.40	3.20	29/04/2025	21/07/2025	2 MRSM, 2 ASG, 1 Road Repair and Footpath works (3km)
15.	Dharuhera	1.77	0.88	29/04/2025	21/07/2025	2 Construction of footpath with interlocking tiles= works (0.97km), 1 MRSM, 1 Intelligent Traffic Management System
16.	Sonipat	8.99	4.49	29/04/2025	21/07/2025	5 ASG, 2 MRSM, 13 EV charging, 8 Road construction works (5 km)

Annexure-IV

List of Projects/ Studies/ Laboratory Equipment Procurement funded under EC Funds as on March 31, 2024

S.No	Title	Type of Activity	Status (Completed/ ongoing)	Expenditure till 31.03.2024 (Rs. in Lacs)
1.	Review of National Ambient Air Quality Standards	Research	Ongoing	14.79
2.	Preparation of guidelines for setting up of Biodiversity Parks in the floodplains of rivers of India	Research	Completed	2.3
3.	Scientific study to review the deep sea discharge norm at Kantiajal, Gujarat with respect to increase in concentration of COD in discharge effluent	Research	Ongoing	78.8
4.	Source Apportionment / Carrying Capacity study for 25 Non-Attainment Cities (NACs)	Research	Ongoing	600.5
5.	Machine learning and Artificial Intelligence (AI) tool development for analysis of air quality data	Research	Ongoing	23.78
6.	Emission Inventories, Source Apportionment and Carrying Capacity studies in the Indo Gangetic Plain (IGP) region	Research	Completed	1.65
7.	Installation and commissioning of Indigenous items for ring test and static injection system and replacing island tables in wet chemical laboratory	Laboratory strengthening	Completed	160.12
8.	Random verification of annual inventory report on hazardous waste management submitted by SPCBs/PCCs	Investigation	Completed	113
9.	Assessment of Air, Water, and Soil Quality in Baghjan Oil Blow out site & its Vicinity, Tinsukia, Assam	Investigation	Completed	52.01
10.	Strengthening of Computer Network in CPCB	IEC	Completed	106
11.	Setting up Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Non-Attainment Cities (NAC) in the country	Monitoring infrastructure	Completed	500
12.	Development of National Hazardous Waste Tracking (NHWTS) Software	Investigation, capacity building	Ongoing	0
13.	Design, Development & Implementation of OCEMS* Data Acquisition and Management System (ODAMS) for direct data transfer for the Control of Pollution from Industries in India **OCEMS (Online Continuous Effluent/Emission Monitoring System)*	Monitoring infrastructure	Ongoing	0
14.	Development of comprehensive Extended Producer Responsibility (EPR) & Circular Economy Portal	Infrastructure for surveillance	Ongoing	14.27
15.	Upgradation of Laboratories with IT enabled services including laboratory information management system	Laboratory strengthening	Ongoing	208
16.	Development of E-learning module under Mission Karamyogi	Capacity building	Ongoing	0
17.	Implementation of centralized barcode system for tracking of biomedical waste	Research	Ongoing	0

S.No	Title	Type of Activity	Status (Completed/ ongoing)	Expenditure till 31.03.2024 (Rs. in Lacs)
18.	Strengthening and upgradation of laboratories of CPCB	Laboratory strengthening	Ongoing	451.57
19.	Inspection of 389 Grossly Polluting Industries (GPIs) discharging in Hindon Sub basin through third party by seven technical institutes along with concerned SPCBs (Phase I)	Investigation	Completed	12.74
20.	Satellite based ambient air quality monitoring at national scale (SAANS): Phase II - Maintenance and Improvement	Monitoring infrastructure	Ongoing	20.02
21.	Assessment of Environmental Carrying Capacity of Eco-Sensitive Zones: Sanjay Gandhi National Park Mumbai	Research	Completed	6.84
22.	Setting up of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Charkhi Dadri and Mohendergarh in Haryana	Monitoring infrastructure	Ongoing	0
23.	Noise Mapping, Hot Spot Identification and Mitigation Plan for Noise Pollution Control in Delhi – I (85 L)	Investigation, Research	Ongoing	33.71
24.	Inventory management system for laboratories and strengthening of infrastructure	Laboratory strengthening	Completed	373.818
25.	Conducting 2-day workshops at Central Institute of Petrochemicals Engineering & Technology (CIPET) centers on plastic waste management in India	Capacity building	Completed	33.75
26.	Sampling & analysis charges, purchase of equipment/ consumables, etc. for NGT assignments conducted by Regional Directorates of CPCB	NGT assignments, Laboratory strengthening	Ongoing	91.5
27.	Demonstration of Effluent Treatment Plant (ETP) for Environmental Laboratory wastewater treatment	Research	Ongoing	8.35
28.	NABL accreditation and strengthening of laboratory at CPCB Regional Directorate Bhopal	Laboratory strengthening	Ongoing	5.33
29.	Inventorization of salt generated from Common Effluent Treatment Plants (CETPs) of Textile & Tannery sector and status of management in the state of Tamil Nadu	Investigation	Ongoing	9
30.	Status of Secured Land-Fills (SLF) maintained by individual industries and CETPs in Tamil Nadu and assessment of ground water quality around SLF	Research	Ongoing	3
31.	Study on flood plain identification & demarcation of River Mahanadi in the identified stretches	Research	Completed	6.3
32.	Development of state of the art laboratory infrastructure at CPCB Regional Directorate Bhopal	Laboratory strengthening	Ongoing	23.15
33.	Strengthening & upgradation of laboratory of CPCB Regional Directorate Vadodara	Laboratory strengthening	Ongoing	0
34.	Upgradation of the central laboratory of Pollution Control Board, Assam	Laboratory strengthening	Ongoing	344.4
35.	Information, Education & Communication Activities in Arunachal Pradesh	Capacity building	Completed	24.92

S.No	Title	Type of Activity	Status (Completed/ ongoing)	Expenditure till 31.03.2024 (Rs. in Lacs)
36.	Inventorization of Seven types of wastes in Arunachal Pradesh	Investigation	Completed	90
37.	Setting up of laboratory at Namsai, Arunachal Pradesh by APPCB	Laboratory strengthening	Completed	59.85
38.	Procurement of Video Conferencing Equipment for Nagaland Pollution Control Board	Capacity building, IEC	Completed	2.85
39.	Inventorization of Hazardous waste in Nagaland	Investigation	Completed	41.18
40.	Information, Education & Communication Activities in Nagaland	Capacity building	Completed	
41.	Construction of 1 km road using plastic waste (polymer bitumen road) at Signal point, Dimapur, Nagaland* **The project was undertaken by Nagaland Pollution Control Board to demonstrate utilization of plastic waste in road making.*	Research	Completed	27.31
42.	Inventorization and awareness of E-waste in the state of Nagaland	Investigation	Completed	22.5
43.	Installation of Real Time Water Quality Monitoring Stations (RTWQMS) by Punjab SPCB	Monitoring infrastructure	Completed	375
44.	Laboratory Upgradation of Punjab SPCB	Laboratory strengthening	Completed	540
45.	VOC emission spray painting and control technologies	Research	Completed	4.55
46.	Manipur Pollution Control board – Assistance for urgent needs of the laboratory of the board (procurement of equipment, consumables, etc.)	Laboratory strengthening	Completed	86.91
47.	Waste to wealth hackathon under Mission Life	IEC	Completed	1.8
48.	Conference cum training program on environmental pollution and remediation conducted at Delhi Judicial Academy	IEC	Completed	1.22
49.	Upgradation of monitoring capabilities of Air Laboratory in CPCB through procurement of HPLC system & accessories and $PM_{2.5}$ Samplers	Laboratory strengthening	Completed	106.8
50.	Restoration of Phuldera drain	NGT assignment	Ongoing	62.5
51.	Study to establish whether existing batch processes and advanced batch automated process are able to meet environmental concerns vis-a vis- continuous process in tyre pyrolysis Industry	NGT assignment	Completed	3.84
52.	Assessment of environmental damage and preparation of restoration plan for air, water and soil environment due to styrene gas leakage at Visakhapatnam	NGT assignment	Completed	25.73
53.	Bioremediation of contaminated soils and surface water bodies and ground water (aquifer) of the De-sludged and refilled Lagoon of Distillery Spent wash of M/s Godavari Bio-refineries Ltd. at Sakarwadi, Maharashtra	NGT assignment	Ongoing	6.78

S.No	Title	Type of Activity	Status (Completed/ ongoing)	Expenditure till 31.03.2024 (Rs. in Lacs)
54.	Environmental and health studies in Malegaon in pursuant to Hon'ble NGT matter in OA No. 359 of 2019-PB	NGT assignment	Ongoing	35.4
55.	Project for reporting built up area with all floor plan drawings and measurements of A wing & B Wing of Project at CTS No. 628 A & 629 C, Village Kandivali Mumbai in pursuant to the Hon'ble NGT matter in OA no. 77/2019 (PB)	NGT assignment	Completed	2.26
56.	Ambient Air Quality Monitoring at Charkhi Dadri	NGT assignment	Completed	1.35
57.	Monitoring of Tadgam, Tithal and Jampore beaches in Valsad, Gujarat and Daman	NGT assignment	Completed	10
58.	Sampling of Cigarettes & Bidi Butts through IITR-Lucknow	NGT assignment	Completed	48
59.	Compensation to the concerned students by Delhi Legal Service Authority	NGT assignment	Completed	51
60.	General Framework For Imposing Environmental Damage Compensation - Meta-analysis study for Environmental Damage Assessment	NGT assignment	Completed	6.29
61.	Restoration plan for environment, public health and ground water around Panipat refinery	NGT assignment	Ongoing	780
62.	Testing of vegetables, edible products, soil & water on the bank of river Yamuna in Delhi	NGT assignment	Completed	2.46
63.	Damage Cost Assessment for MSW Landfill site at Bandhwari Village Gurugram	NGT assignment	Completed	8.74
64.	Validation of Right Biotic System for carrying out quick hygienic survey of rivers	NGT assignment	Completed	10.27
65.	Report on impact of operation of kiln on air pollution in NCR in pursuant to Hon'ble SC civil appeal 18213/2023	Hon'ble court assignment	Completed	1.65
66.	Report on extent of damage in & around MIDC Tarapur; restoration measures, environmental damage cost & cost of restoration, and individual accountability of CETP and polluting units in pursuant to Hon'ble NGT OA no.64/2016 (WZ)	NGT assignment	Completed	5.19
67.	Value added use of Bottom Ash of thermal power plant as partial replacement of natural sand in concrete	Research	Ongoing	0

शिकायत सत्यापन रिपोर्ट

- शिकायत संख्या :– 04213089798839, 04213089795037 (राजस्थान संपर्क पोर्टल शिकायत)
- शिकायत विषय :– छितर का पार गांव में स्थित मंगला तेल एवं गैस क्षेत्र मैसर्स वेदान्ता (केयर्न तेल एवं गैस) लिमिटेड द्वारा प्रदूषण किये जाने बाबत्
- द्वारा :– श्री मुकेश चौधरी एवं श्री वी.आर. चौधरी
- संदर्भ :–(अ) प्रभारी अधिकारी (पी.सी.बी.) रा.प्र.नि.म., मुख्यालय जयपुर द्वारा अग्रेषित शिकायत जरिये पत्रांक 3684 एवं 3602 दिनांक क्रमशः 18.02.2021 एवं 29.01.2021 एवं इस कार्यालय में प्राप्ति दिनांक 31.03.2021

परिवादी से दूरभाष एवं निरीक्षण स्थल पर संपर्क किये जाने पर उन्होंने उपरोक्त शिकायत मैसर्स वेदान्ता (केयर्न ऑयल एण्ड गैस) लिमिटेड के मंगला तेल क्षेत्र निकटग्राम जोगासर कुआ, नगाणा, कवास, तहसील व जिला बाड़मेर से संबंधित होना बताया।

निरीक्षण के दौरान निम्न तथ्य पाये गये–

1. निरीक्षण व शिकायत का सत्यापन मैसर्स वेदान्ता (केयर्न ऑयल एण्ड गैस) लिमिटेड के प्रतिनिधि श्री भोमाराम जाट (पर्यावरण प्रबंधक) की उपस्थिति में दिनांक 07.04.2021 को किया गया।

2. शिकायत में वर्णित तथ्यों एवं शिकायतकर्ता ने बताया कि उपरोक्त औद्योगिक इकाई द्वारा पर्यावरण प्रदूषण फैलाया जा रहा है, बोरवेल से शुरूआत के 10 मिनट में काला पानी आता है तथा उद्योग द्वारा तेल एवं गैस उत्खनन के कुंओं में हानिकारक रसायन डाले जा रहे हैं इत्यादि के संबंध में उद्योग प्रतिनिधि एवं शिकायतकर्ता से संपर्क स्थापित कर जानकारी प्राप्त की गई।

3. उद्योग प्रतिनिधि श्री भोमाराम ने बताया कि तेल एवं गैस उत्खनन के दौरान 01 सेलार पिट में कुंओं का समूह होता है जिनमें कुछ उत्पादन हेतु तथा कुछ इंजेक्शन हेतु काम में लिये जाते हैं। इंजेक्शन कुंओं में पानी को इंजेक्ट किया जाता है जो कि गहराई पर तेल एवं गैस के द्रव्यमान को प्रतिस्थापित करता है जो जमीन के अंदर तेल एवं गैस के उत्खनन के बाद दाब संतुलन एवं द्रव्यमान संतुलन का कार्य करता है।

4. इनके अतिरिक्त कुछ समर्पित गहरे कुएँ (Deep Dump Wells) भी उद्योग द्वारा काम में लिये जाते हैं जिनमें आर.ओ. रिजेक्ट का पानी निर्धारित मानकों अनुसार लगभग 1700–2300 मीटर गहराई पर डम्प किया जाता है। इतनी गहराई पर पानी को डम्प करने हेतु उद्योग द्वारा वन एवं पर्यावरण मंत्रालय, भारत सरकार से पर्यावरणीय स्वीकृति ली गई है तथा राजस्थान प्रदूषण नियंत्रण मण्डल द्वारा भी इस कार्य हेतु जल एवं वायु अधिनियमों 1974 एवं 1981 के अंतर्गत सशर्त संचालन सम्मति जारी की गई है। गहराई पर रिजेक्ट पानी को डम्प करने हेतु उद्योग द्वारा कुआ MS-01 मंगला तेल क्षेत्र काम में लिया जा रहा है।

5. उद्योग प्रतिनिधि श्री भोमाराम ने बताया कि तेल एव गैस उत्खनन को और अधिक बढ़ावा देने एवं उत्खनन की दक्षता बढ़ाने हेतु तेल एवं गैस कुंओं में पानी के साथ बहुलक रसायन इंजेक्ट किये जाते है। जो कि तेल एवं गैस मंत्रालय भारत सरकार के हाइड्रोकार्बन निदेशालय (डी.जी.एच.) तथा तेल एवं प्राकृतिक गैस कॉर्पोरेशन (ओ.एन.जी.सी.) द्वारा निर्धारित मानकों के अनुरूप किया जाता है।

6. निरीक्षण के दौरान उद्योग प्रतिनिधि की उपस्थिति में 03 बोरवेल क्रमशः श्री हेमन्तकुमार, मंगला WP-01 के निकट, जोगासर कुंआ, श्री राजुराम/किरताराम, मंगला WP-04 के निकट जोगासर कुंआ एवं श्री मोहनराम गोदारा मंगला

WP-04 के निकट जोगासर कुआ, तहसील बायतु, जिला बाड़मेर से पानी के सेम्पल लिये गये जो कि विश्लेषण हेतु राज्य प्रदूषण नियत्रण मण्डल की केन्द्रीय प्रयोगशाला जयपुर भिजवाये गये हैं।

7. उपरोक्त जल नमूनों के अतिरिक्त तहसीलदार, बायतु द्वारा उनके कार्यालय पत्र दिनांक 09.04.2021 द्वारा भी एम.पी. टी. नगाणा के आस-पास एवं ग्राम पंचायत छितर का पार, चोकला में ब्लू ऑयल वेलपेड्स के आस-पास स्थित पानी के कुंओं/बोरवेल्स के पानी की सेम्पलिंग की जाकर विश्लेषण रिपोर्ट भिजवाने हेतु लिखा गया है जिस पर अग्रिम कार्य दिवसों में उक्त क्षेत्र में बाकी रहे बोरवेल्स के जल नमूने लिये जाकर विश्लेषण हेतु भिजवाया जाना प्रस्तावित है।

15/04/21

(भलाराम सियाग)
सहायक पर्यावरण अभियंता
रा.प्र.नि.म., बालोतरा

अभिशंषा :- उपरोक्त वर्णित तथ्यों के अनुसार चूंकि उद्योग के तेल एवं गैस उत्खनन कुएँ काफी गहराई पर स्थित होते है तथा उद्योग द्वारा आर.ओ. रिजेक्ट पानी को लगभग 1700 से 2300 मीटर गहराई पर पर्यावरण स्वीकृति एवं संचालन सम्मति की शर्तों के अनुरूप डम्प किया जाता है जिसका पीने के पानी के कुंओं/बोरवेल्स में स्थित जलभराव (Aquifer) के साथ संदूषण (Contamination) की संभावना कम है तथापि इस पर पूर्ण टिप्पणी अथवा आवश्यक कार्यवाही जल विश्लेषण रिपोर्ट (जल विश्लेषण हेतु नमूने दिनांक 07.04.2021) आने के उपरान्त ही किया जाना उपयुक्त होगा।

15.4.21

(अमित जुंझाल)
क्षेत्रीय अधिकारी
रा.प्र.नि.म., बालोतरा

(5)

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 24)

Final Report

Report No. : **20564**
Report On : **25/05/2021**

I hereby certify that I **S. N. Tikkiwal**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **09/04/2021** from **Mr Bhalaram Siyag, AEE, Balotra ,RSPCB Balotra** a sample of **Water of Tubewell of Sh. Hemant Kumar Near Mangla WP-01 Jogasar Kuan , Near Mangla WP-01, Jogasar Kuan , Barmer** Collected from **Tubewell of Sh. Hemant Kumar, Near Mangla WP-01, Jogasar Kuan, District Barmer** Collected on **07/04/2021**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **25/05/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	8.36
2	Chemical Oxygen Demand (COD) mg/l	2.0
3	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	Not Traceable
4	Copper as Cu mg/l	Not Traceable
5	Zinc as Zn mg/l	0.545
6	Nickel as Ni mg/l	Not Traceable
7	Lead as Pb mg/l	Not Traceable
8	Total Chromium as Cr mg/l	Not Traceable
9	Iron as Fe mg/l	0.75
10	Cadmium as Cd mg/l	Not Traceable
11	Chloride as Cl mg/l	312
12	Sulphate as SO_4 mg/l	116
13	Hardness (Total) as $CaCO_3$ mg/l	108
14	Hardness (Calcium) as $CaCO_3$ mg/l	64
15	Magnesium Hardness as $CaCO_3$ mg/l	44
16	Calcium (Titrimetric) as Ca mg/l	26
17	Magnesium as Mg mg/l	11
18	Fluoride as F mg/l	1.16
19	Total Dissolved Solids mg/l	896
20	Total Alkalinity as $CaCO_3$ mg/l	160

The condition of the seals, fastening and container on receipt was as follows : **Intact**
Signed This On **25/05/2021**

BOARD ANALYST

Rajasthan State Pollution Control Board
Head Office (Central Laboratory)
4, Institutional Area, Jhalana Doongari,
Jaipur-302 004
Phone: 0141-5159648,5159607
Fax: 0141-5159665

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 24)

Final Report

Report No. : **20565**

Report On : **25/05/2021**

I hereby certify that I S. N. Tikkiwal, State Board Analyst duly appointed under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974 received on the 09/04/2021 from Mr Bhalaram Siyag, AEE, Balotra ,RSPCB Balotra a sample of Water of Tubewell of Sh. Rajuram/Kirtaram Near Mangla WP-04 Jogasar Kuan , Near Mangla WP-04, Jogasar Kuan , Barmer Collected from Tubewell of Sh. Rajuram/Kirtaram, Near Mangla WP-04, Jogasar Kuan, District Barmer Collected on 07/04/2021. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **25/05/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	8.73
2	Chemical Oxygen Demand (COD) mg/l	6.4
3	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	Not Traceable
4	Copper as Cu mg/l	Not Traceable
5	Zinc as Zn mg/l	0.425
6	Nickel as Ni mg/l	Not Traceable
7	Lead as Pb mg/l	Not Traceable
8	Total Chromium as Cr mg/l	Not Traceable
9	Iron as Fe mg/l	0.65
10	Cadmium as Cd mg/l	Not Traceable
11	Chloride as Cl mg/l	296
12	Sulphate as SO_4 mg/l	92
13	Hardness (Total) as $CaCO_3$ mg/l	120
14	Hardness (Calcium) as $CaCO_3$ mg/l	72
15	Magnesium Hardness as $CaCO_3$ mg/l	48
16	Calcium (Titrimetric) as Ca mg/l	29
17	Magnesium as Mg mg/l	12
18	Fluoride as F mg/l	0.531
19	Total Dissolved Solids mg/l	796
20	Total Alkalinity as $CaCO_3$ mg/l	152

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **25/05/2021**

BOARD ANALYST

Rajasthan State Pollution Control Board
Head Office (Central Laboratory)
4, Institutional Area, Jhalana Doongari,
Jaipur-302 004
Phone: 0141-5159648,5159607
Fax: 0141-5159665

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 24)
Final Report

(1)

Report No. : 20566
Report On : 25/05/2021

I hereby certify that I S. N. Tikkiwal, State Board Analyst duly appointed under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974 received on the 09/04/2021 from Mr Bhaluram Siyag, AEE, Balotra ,RSPCB Balotra a sample of Water of Tubewell of Sh. Mohanram Godara Near Mangla WP-04 Jogasar Kuan , Near Mangla WP-04, Jogasar Kuan , Barmer Collected from Tubewell of Sh. Mohanram Godara, Near Mangla WP-04, Jogasar Kuan, District Barmer Collected on 07/04/2021. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on 25/05/2021 and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	8.81
2	Chemical Oxygen Demand (COD) mg/l	0.8
3	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	Not Traceable
4	Copper as Cu mg/kg	Not Traceable
5	Zinc as Zn mg/l	0.335
6	Nickel as Ni mg/l	Not Traceable
7	Lead as Pb mg/l	Not Traceable
8	Total Chromium as Cr mg/l	Not Traceable
9	Iron as Fe mg/l	0.63
10	Cadmium as Cd mg/l	Not Traceable
11	Chloride as Cl mg/l	256
12	Sulphate as SO_4 mg/l	102
13	Hardness (Total) as $CaCO_3$ mg/l	120
14	Hardness (Calcium) as $CaCO_3$ mg/l	68
15	Magnesium Hardness as $CaCO_3$ mg/l	52
16	Calcium (Titrimetric) as Ca mg/l	27
17	Magnesium as Mg mg/l	13
18	Fluoride as F mg/l	0.777
19	Total Dissolved Solids mg/l	776
20	Total Alkalinity as $CaCO_3$ mg/l	184

The condition of the seals, fastening and container on receipt was as follows : **Intact**
Signed This On **25/05/2021**

BOARD ANALYST

Rajasthan State Pollution Control Board
Head Office (Central Laboratory)
4, Institutional Area, Jhalana Doongari,
Jaipur-302 004
Phone: 0141-5159648,5159607
Fax: 0141-5159665

Complaint verification report (Rajasthan State Pollution Control Board, Regional Office, Balotra, Dist. Barmer)

1. Complaint No.- **09181194326488**
2. Complainant:- Sh. जेसाराम- **9784080392**
3. **Complaint matter:-** शिकायत करता का कहना है की एमपीटी में से पानी खराब पानी आ रहा है उस को रोका जावे.
4. **Verification details/factual status:-** In reference to the complaint the concerned area has been inspected by undersigned on 20/12/2019.
   i. The site or area concerned in complaint is agriculture land of Sh. Jesaram located adjacent to MPT Kawas on south west direction.
   ii. Inspection has been carried out in presence of Sh. BR Jat, Manager-Environment of M/s Vedanta (Cairn Oil & Gas) Limited.
   iii. On contacting the complainant he told that the seepage water is coming to their agriculture land and oil mix water is discharging onto their land from MPT Kawas.
   iv. As per site inspection carried out inside of MPT Kawas premises, M/s Vedanta Limited has provided water storage tanks i.e. fire water safety storage tanks (6636 Cubic meter capacity-02 in number), injection water tanks (-03 in numbers), Potable water tank(1230 cubic meter capacity-01 in number), treated water tank (5565 cubic meter capacity-01 in number), filtered water tank-(2824 cubic meter capacity-01 in number) and one rain water recharge pit. All water storage tanks have been provided with pucca lining and no leakages have been observed.
   v. As per site observations outside of the MPT during course of inspection no such direct discharge of oil mix water or waste water from MPT Kawas to agriculture land has been observed.
   vi. Due to lack in technical expertise with RSPCB for ground water study, the exact source of seepage water could not be identified. However the source or reasons could be the High hydrostatic pressure from heavy infrastructure of MPT, geological formation, obstruction in natural rain water flow, location of affected land area in downstream side etc.
   vii. As per discussion held with M/s Vedanta Limited official they have told that earlier they have carried out the de watering of the area and further will carry out detailed study about the possible reasons & solutions to prevent and control the seepage problem of nearby farm land, if it is related to MPT.

   Comments:- **Matter is put up for perusal and further necessary directions please.**

   (B.R. Siyag)
   Asistant Env.Engineer

5. **Comments & recommendations:- Board has no technical competency in sub surface/ground water flow study. During inspection no seepage or direct discharge of effluent from industry was observed. All the water storage tanks were found lined, thus there are no possibilities of water discharge or seepage from these tanks. Thus industry may be directed to carry out a detailed study in respect of source of seepage of water towards the complainant's agriculture field. Also case may be forwarded to GWD (Ground Water Department) for suitable action.**

   (Amit Juyal)
   Regional Officer

RAJASTHAN STATE POLLUTION CONTROL BOARD
VERIFICATION REPORT

M/s Vedanta Limited – Cairn Oil & Gas
RJON-90/1 Block – Onshore Oil & Gas Production
District Barmer Rajasthan

A complaint related with pollution being created in Barmer Oil & Gas Production area by M/s Vedanta Limited - Cairn Oil & Gas breaching Environmental Laws & using banned chemical substances was received at Head Quarter Rajasthan State Pollution Control Board (RSPCB) Jaipur. This complaint was forwarded by Shri Hema Ram Choudhary, Hon'ble Minister of Forest, Environment & Climate Change Department Government of Rajasthan. In this matter Head Quarter RSPCB directed undersigned to verify the facts and to submit verification report. In order to investigate the issue inspection of above Oil & Gas Production activity was conducted on dated 30/04/2022 & 05/05/2022. Details of M/s Vedanta Limited - Cairn Oil & Gas w.r.t. its activities, statutory clearances and waste management etc. are as under-

A. Detail about activities & statutory clearances-

- Barmer Oil & Gas Production area i.e. Rajasthan joint venture (RJ-ON-90/1) block comprises of Vedanta limited (Cairn Oil & Gas) and M/s. Oil and Natural Gas Corporation Limited (ONGC) for hydrocarbon exploration, development, and production activities. The block is located in District Jalore and Barmer of Rajasthan state. It is spreaded over an area of 3111km2. This Petroleum Mining Lease (PML) area is allotted by Ministry of Petroleum and Natural Gas (MoPNG) Government of India..
- Cairn started its exploration activities in RJON-90/1 block area in year 2001. First Environmental Clearance (EC) for exploration & appraisal well drilling was granted by Ministry of Environment, Forest and Climate Change (MoEF & CC) Government of India on dated 5th January 2001 for drilling of 9 wells. Subsequently, Cairn obtained 3 more ECs in year 2003, 2006 & 2014 for exploration & appraisal drilling activities. Cairn has obtained separate ECs for production of hydrocarbons from RJON-90/1 block. The first production EC was granted on 21st March 2006 and till date, company has obtained total 8 ECs for enhanced hydrocarbon production. Latest EC for expansion projects to produce 400,000 BOPD of Crude Oil and 750 MMSCFD of Natural Gas from RJON block was granted by MoEF & CC on 11th April 2019
- Total geographical area of RJON-90/1 block is divided into 3 Parts as Development Areas (DA) based on Petroleum Mining Lease (PML).
  1- Development Area -1 (DA-01) or Petroleum Mining Lease -01 – Total Area 1859 Km^2
  2- Development Area -2 (DA-02) or Petroleum Mining Lease -02 - Total Area 430 Km^2
  3- Development Area -3 (DA-03) or Petroleum Mining Lease -03 - Total Area 822 Km^2

  Company has obtained DA wise CTEs for three Development Areas (DA-01, 02 & 03) for development of hydrocarbon production well pads and separate CTEs for other surface facilities like processing terminals (MPT & RGT), operation base, warehouses, Axils, Central

Polymer Facility, Solid Liquid Separation facility at Kawas NW and one for exploratory & appraisal drilling (60 Wells). Production process and other activities are identical at all well pads and common DA wise CTE was granted by RPCB for development of multiple well pads in each DA area (i.e., 104 WPs in DA-01, 40 WPs in DA-02 & 6 WPs in DA-03 area) and cumulative drilling of 3379 wells all 3 DA areas.

- As on date, company has total 126 live consent to operate (some sites having multiple CTOs for different expansion activities) and 108 Hazardous Waste Authorizations for 110 facilities.
- Cairn has developed two processing terminals named as Mangala Processing Terminal (MPT) and Raageshwari Gas Terminal (RGT) for processing of crude oil and natural gas respectively. The well pads from associated fields are connected to these terminals through underground pipelines. The production fluid is processed at these terminals and further dispatched to downstream industries though continuous heated insulated 680 km long pipeline running from Barmer (Rajasthan) to Bhogat (Jamnagar, Gujarat). The detail operating Facilities in RJON is as Block is as under-

Fields & Wellpad count	Other Facilities
• Mangala (22) • Bhagyam (15) • Aishwariya (11) • Guda (8) • Raageshwari Gas (7) • Saraswati (3) • N Field (3) • V&V Field (3) • Raag Oil (2) • Kaameshwari (1) • Satellite WPs (21)	• Mangala Processing Terminal • Raageshwari Gas Terminal • Central Polymer Facility • Polymer Storage Yard • Warehouses (2) • MPT Operation Base • RGT Operation Base • BH-06 Camp Site • AGIs (8) in RJ • Pipelines (Inter & Intra field)

Observation-

- Different processes of the activity were found in operation.
- All activities & facilities have been established and operated after obtaining required statutory clearances from concerned competent authority.
- Statutory clearances are being renewed time to time.
- Compliance reports of the clearances are being submitted to concerned competent authority.

8. **Wastewater Management:**

During process of production of Crude oil following main streams of waste water are generated in the activity. Present practice for handling, treatment and disposal of waste water from these streams is as under-

(अनिल शर्मा)
क्षेत्रीय अधिकारी

➢ Produced Water

This stream of waste water is generated during Oil & Gas upstream operations. The well fluid comprises of Crude Oil, Natural gas, and Produced Water (PW) separated through phase separation. The crude in RJON 90/1 block, has high viscosity and it can be efficiently extract only through hot water flooding into the oil reservoir to replace the voids for sustaining the reservoir pressure and optimize the oil recovery from sub-surface formation. The produced water during production is directly transported to processing terminal and after desired treatment it is re-injecting back into the reservoir for void replacement. Through technology interventions in wastewater treatment plants, Cairn is able to recycle >99% of Produced Water.

➢ Drilling Wastewater:

This Wastewater generated during drilling activities from washing of drill cuttings and other cleaning activities. This wastewater contained high suspended solid content. M/s Vedanta Limited - Cairn Oil & Gas has mobile solid liquid separation unit to treat this raw water and treated waste water reused in drilling operations as well as used for re-injection.

➢ Pigging and Well Services Wastewater:

This wastewater stream is generated from pigging of pipelines and well services and mainly contains crude oil traces and sludge. This wastewater is temporarily stored in open pits (HDPE with Brick lining and Concrete and/or HDPE lined pit) at well pads and further transported to treatment and re-injection back to hydrocarbon reservoir for void replacement. M/s Vedanta Limited - Cairn Oil & Gas has constructed two effluent treatment plants for treatment of waste water from its activities. Out of these one is located at Kawas NW (Village Lakhani Meghwalon Ki Dhani Tehsil & District Barmer) and another is located at Mangala 3/6. Design capacities of these plants are having capacity of 300 KLD & 3178 KLD respectively. The treated waste water is finally used for re-injection back into the reservoir for void replacement.

The crude oil traces in wastewater generated through pigging and well maintenance activities (milling, well bore cleanout surface well testing and fracking) gets accumulated and float over wastewater storage pits. The same is skimmed on regular interval and sent to MPT for further processing through offspec tank.

➢ Domestic Wastewater Recycling:

To handle and treatment of domestic sewage STPs have been installed at process terminals (45 KLD at MPT) and operation bases (330 KLD at MPT OB &40+25 KLD at RGT Camp). Treated water is used in greenbelt area for irrigation. Additionally, Cairn has constructed wetland (Reed Bed System) of 10 KLD capacity at BH-06 camp for recycling of domestic sewage.

Observation-

- Different Facilities for waste water handling, treatment and disposal were verified at site and found in operative condition. It was intimated that operation of trade effluent plants depends upon sufficient quantum of waste water.
- Records related with operation of treatment facilities are being maintained.
- Maintenance of temporary waste water storage pits at all well pads is required to be improved and more frequent because liners and walls of pits gets damaged during removal of oil traces/crude and waste water. During visit the pits were found damaged at some well pads i.e. WP no. 9, 1, 14 etc. and possibilities of seepage of untreated waste water may not be ruled out. Though it was intimated by representative of M/s Vedanta that pits are properly maintained before outcome of rainy season however, it is to be practiced regularly as and when needed.
- Foul smell was observed at some places in and around the well pads due to temporary storage of waste water into open pits.

C. **Hazardous Waste Management:**

Drill cuttings and various oily wastes are the major categories of hazardous waste being generated during upstream hydrocarbon operations. The Company has obtained authorization for generation, collection, Storage and disposal of hazardous waste of different categories generated at well pads and at processing terminals. Major categories of hazardous waste, its quantity and mode of disposal are as under:

Waste Type & Category	Authorized Quantities (Max)	Disposal Pathway
Drill cuttings excluding those from waste-based mud (Cat. 2.1)	925 MT/Well	Landfill /Coprocessing
Sludge containing oil (Cat. 2.2)	53 MT/Well	Landfill / Coprocessing
Drilling mud containing oil (Cat. 2.3)	475 MT/Well	Landfill / Coprocessing
Empty containers barrels/liners contaminated with Hazardous waste/chemicals (Cat. 33.1)	15 MT/Month - MPT 8MT/Well/Annum - WPs	Reuse /Sale to Authorized Recycler
Contaminated cotton rags or other cleaning materials (Cat. 33.2)	12 MT/Month – MPT 10 MT/Well/Annum - WPs	Incineration/ Coprocessing
Chemical sludge from wastewater treatment (35.3)	700 MT/Month	Landfill / Coprocessing
Concentration or evaporation residues (Category 37.3)	500 MT/Month – MPT 50 MT/Well/Annum - WPs	Landfill / Coprocessing
Spent/Used Oil (Category 5.1)	95 KL/Month – MPT 5 MT/Well/Annum - WPs	Reprocess/Sale to authorized recycler
Waste or Residue containing Oil (Category 5.2)	675 MT/Month – MPT 55 MT/Well/Annum - WPs	Landfill / Coprocessing/ Incineration / Sale to recycler

Observation-

- Records of Hazardous waste generation, treatment and disposal are being maintained in prescribed formats of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HWMR-2016).
- The oil-based drill cuttings hazardous waste is being disposed in real time to cement plant, while other waste is being collected at captive TSDF in MPT for stabilization and moisture correction and dispose further to cement industry.
- Captive facilities for handling, treatment and disposal at captive TSDF were in line and operational.

D. Verification of contents of complaint:

During visit verification of contents of complaint was done in presence of complainants and villagers. The list of complainants and villagers present during verification is being attached as ANNEXURE-I. Representatives M/s Vedanta Limited - Cairn Oil & Gas Dr Bhoma Ram Jat, Chief Environment Manager- Onshore and Capt. Deepak Patni, DGM - Security and Administration also accompanied during verification. It is important to mention here that during visit on dated 30/04/2022 the complainant Sh Ramlal, a member of Barmer-Gudamalani Tel Gas Paryavaran Sanrakshan Samittee, was contacted telephonically and a request was made to be at site during verification. However, he felt constrained to be on site due to shortage of time therefore revisit was conducted on dated 05/05/2022 giving prior intimation to complainants. Point wise details of findings w.r.t. complaint is as under-

- **Point no. 1**

It has been mentioned in this point that during production of crude oil M/s Vedanta Limited - Cairn Oil & Gas is carrying out process of "Hydraulic fracturing" and using banned chemical substances in this process. Due to this practice ground water & soil of area are getting contaminated, cracks have been developed in houses & water storage tanks (Taankas) and earth quake like vibrations are felt during night hours. During visit also villagers of area repeated the same issues and showed the cracks in their houses. Problem of vibration and noise was also reported due to "Hydraulic fracturing" operation.

The matter was examined and it was found in literature that ***"Hydraulic fracturing" is a technique in which large volumes of water and sand, and small volumes of chemical additives are injected into low-permeability subsurface formations to increase oil or natural gas flow. The injection pressure of the pumped fluid creates fractures that enhance gas and fluid flow, and the sand or other coarse material holds the fractures open."*** The records of activity were also examined for knowing status of this technique in the statutory clearances like Environmental Clearance (EC) issued by the MoEF & CC, GOI and Consent to Operate, issued under provisions of Water Act 1974 & Air Act 1981 by RSPCB. During examination it was found that M/s Vedanta Limited - Cairn Oil & Gas has disclosed this process in its process description mentioned in EIA reports submitted at time of application for EC. Subsequently, the competent authority, which issued EC to the activity, has not imposed any specific condition regarding not using this process during production activity. Similarly,

Consent to Operate, issued under provisions of Water Act 1974 & Air Act 1981 does not restricts the activity for carrying out the process of "Hydraulic fracturing".

In order to gather the information of water quality, samples of 03 bore wells (located in vicinity of well pad no. 1, 4, 19) were collected and analyzed for the parameters mentioned in IS 10500 Drinking Water-Specifications. Detail of this analysis is attached as ANNEXURE-II. It is important to mention that during sampling from the Bore well located in premise of sh Ashok Kumar (Near Well Pad no. 01) flow of blackish water and smell was observed during first few seconds. However, it was disappeared during continuous running of bore well.

In light of above it is found that process of "Hydraulic fracturing" is a commonly used practice during production process of oil & gas. Further, this process could not be regulated under provisions of Water Act 1974; Air Act 1981, E.P. Act 1986 and rules made there under, hence further examination in this issue is beyond jurisdiction of SPCB. In this matter demand of complainants regarding ill effects, use of banned chemicals & ban of the process may further be examined and decided by concerned competent authority engaged in regulation of production process of Oil & Gas sector.

- **Point no. 2**

The issue in this point is related with practice of storage of waste water containing mud or traces of crude into the pits at well pads/ exploration sites of the activity. It has been also mentioned in the complaint that due to this storage practice cultivable fields got ruined, land become barren and quality of ground water is degrading. During visit it has been verified that waste water containing traces of crude or oily mud is temporarily stored in pits located within premise of the exploration sites, marginal well pads and production well pads before its final treatment. Further it has also been verified that at exploration sites & marginal well pads HDPE lined pit i.e earthen pit with HDPE liner (1000 Micron or more) are used for storage of waste water and at production phase "Pucca" pits are constructed in premise of well pads. The design of "Pucca" pit is attached as ANNEXURE-III. The practice of storage of waste water into pits has been permitted in EC and consent letters.

M/s Vedanta Limited - Cairn Oil & Gas has also constructed 06 deep dump wells (04 at Mangla South Site & 02 at Village: Jasnathpuri, Panchayat – Chokla, Tehsil – Baytu.) for disposal of treated waste water. Out of these 06 wells 02 wells are in operation, 02 wells are standby and use of remaining 02 (Jasnathpuri) is yet not started. These deep dump wells are permitted in EC and consent of the Board. The qualitative standards for deep dump well water have also been notified in E.P. Act 1986 and these wells are permitted in statutory clearances.

All these pits are used for temporary storage of waste water before its treatment as mentioned in point no. B & C of this report. During visit no spillage of waste water was observed at site. However, it was observed that maintenance of temporary waste water storage pits at production well pads sites required to be more improved in order to avoid possibilities of percolation of waste water into the ground because walls and impervious surface of some pits at well pads (for example WP no. 9, 1, 14 etc) were found damaged and possibilities of seepage and over flow of untreated waste water may not be ruled out. Though it was intimated by representative of M/s Vedanta that pits are properly maintained before outcome of rainy season however, it is to be practiced

regularly, as and when needed. Further, foul smell was observed at some places in and around the well pads due to temporary storage of waste water into open pits.

Matter of construction of waste water storage pit outside well pads in the fields of farmers was also verified and during visit no waste water storage pit was found constructed outside the fenced area of exploration site or production well pad. In order to gather the information of water quality, samples of 03 bore wells were collected and analyzed for the parameters mentioned in IS 10500 Drinking Water-Specifications. Detail of this analysis is attached as ANNEXURE-II. The issue related with cultivable fields getting ruined and land becoming barren may be examined by concerned competent department.

- **Point no. 3**

The issue in this point is related with abstraction of saline water for different usages by M/s Vedanta Limited - Cairn Oil & Gas through bore wells located at village Madpra, block Baytu District Barmer and accidental leakage of this saline water during subsequent use of saline water for injection into the oil & gas wells for production of crude oil and gas. The matter was examined from the records of activity and it was found that due permission from Central Ground Water Authority (CGWA) has been obtained for abstraction of 18797500 KL of saline water through 24 tube wells. This permission was valid up to 11/08/2019. Application for renewal of this NOC has already been submitted of CGWA and at present it is not processed by the authority. Copy of NOC & renewal application is attached at ANNEXURE-IV.

The matter of accidental leakage of saline water was also enquired with representatives of M/s Vedanta Limited - Cairn Oil & Gas and it was confessed by them that certain episodes of accidental leakage have happened in the activity however all required technical updations for prevention of such incidences have been implemented. Further, it was also intimated that all remedial measures had been for control of damage due to past incidents and every time the matter were also intimated to the Board. Copies of letter of intimation are attached at ANNEXURE-V. However, study related with damage of any agriculture land due to leakage of saline water may be conducted by concern competent department.

- **Point no. 4**

The issue in this point is related with injection of polluted waste, banned & poison chemic and waste oil mud into the ground using exploration wells in place of deep dump wells (having depth more than 1000 M). Further, it has also been mentioned that one of such well is located at Mangla South Chandion Ki Dhani Sar ka paar. For verification of fact the site of Mangla South Chandion Ki Dhani Sar ka paar was conducted along the complainants. During inspection it was found that M/s Vedanta Limited - Cairn Oil & Gas has constructed 04 Deep Dump wells at this site. As per representative of company depth of these wells is 2300 M. At a time 02 wells are uses and remaining 02 are kept as standby arrangement. It is important to mention that permission for use of deep dump well has been accorded in Ec & CTO (latest order no. 2021-2022/HDF/0810 Dated 10/12/2021). Copy of relevant pages of this CTO attached as ANNEXURE-VI. It was also intimated by representative of concern that standards for quality of waste water for deep dumping have been prescribed in

Environment Protection Act and the same are being complied. As per records State Board also collects & analyze quality of this waste water. Copies of last analysis report are being enclosed as ANNEXURE-VII.

During visit no exploration well was found to be used as deep dump well. The matter related with acquisition of land may be verified by concern competent department because no deep dump well developed and planned till date in Jogasar Kuwa.

- **Point no. 5**

The issue in this point is related with encroachment on the land acquired for flood channel by constructing Mangla Process Terminal (MPT), other offices, Ware house, temple, other temporary & permanent structures without permission and dumping of chemical mud & residues into this land. In order to gather factual status visit of site was conducted with complainants and during inspection following observations were made-

a- Mangla Process Terminal (MPT), other offices, Ware house, temple, other temporary & permanent structures were found constructed at alleged site shown by the complainant.

b- One other site used for dumping of scrap, C & D waste and other discarded material by M/s Vedanta Limited - Cairn Oil & Gas was also shown by complainants. The complainants also alegated that lot of chemical mud & residues was also dumped at this site during year 2012-2013 and the site is reclaimed with time. During visit it was found that along with scrap materials, scrapped sand containing traces of oily material was also dumped at various locations of this site.

In this issue it was concluded that matter related with encroachment in flood channel by construction of temporary & permanent structures does not falls under jurisdiction of SPCB and may be examined only by concerned department. The matter related with illegal dumping of chemical mud & residues may be established only after conducting soil analysis of the alleged site reported by complainants. However, in order to protect the environment M/s Vedanta Limited - Cairn Oil & Gas may be advised to shift all scrap to en-marked site. The representative of company have denied for any dumping of chemical mud & residues in past.

- **Point no. 6, 7 & 8**

The issues mentioned in the points are basically related with cutting of trees for preparation well pads, compensatory plantation for protection of environment, construction of well pads in catchment area of river luni and loss/damage to wild life of the area. In the complaints it has been repeatedly mentioned by complainant that for cutting of trees no information was given to concern departments i.e. forest department and revenue department. Therefore, investigation in these issues may be conducted by concerned department. However, in order to prevent air pollution from the activity and to verify compliance of prescribed air quality standards from premise of M/s Vedanta Limited - Cairn Oil & Gas, State Boards conducts air monitoring at different locations time to time. Copies of last ambient air monitoring reports are being attached as ANNEXURE-VIII. As per the reports concentration of gases have never exceeded the prescribed limits however, concentration of PM10 has exceeded the standards. Reason for the same may be asked from the company and a revised monitoring may be conducted for verification.

➢ **Point no. 9**

The site near Gate no 3 of MPT was visited during inspection and it was found that company has constructed new Sulphate Removal Plant at this site. As per records prior consent has been obtained for this plant. Remaining issues related with other government permission may be verified by concerned department. Further, detailed investigation in matter of cutting and re-plantation f trees from this site may be carried out by concerned departments.

➢ **Point no. 10**

The issues mentioned in the points are basically related with cutting of trees for preparation well pads, compensatory plantation for protection of environment and funds invested for plantation under CSR activities. In the complaints it has been repeatedly mentioned by complainant that for cutting of trees no information was given to concern departments i.e. forest department and revenue department. Therefore, investigation in these issues may be conducted by concerned department.

➢ **Point no. 11**

The content of this point does not falls under jurisdiction of SPCB therefore desired investigation may be done by concerned competent department.

➢ **Point no. 12**

The issues mentioned in the point are related with land rent, acquisition of land, and cutting of trees without permission from competent department. Therefore, investigation in these issues may be conducted by concerned departments.

➢ **Point no. 13**

The issues mentioned in the point are related with restoration of land after completion of works related with oil & gas production. In this issue it was intimated by representative of concern that after completion of work the piece of lands are restored on basis of agreement between company and land owner. However, detailed investigation in the issue may be conducted by concerned department because as per condition of EC the work of restoration of such sides is governed accordance with the applicable Indian Petroleum Regulations. It has also been mentioned that left of chemical containing mud and chemical waste was left and observed at two sites by the in year 2018. The matter is related with past violation and cannot be established without scientific study at all such sites. During inspection few such abandoned sites were visited but no chemical containing mud and chemical waste was observed at these sites.

➢ **Point no. 14, 15, 16 & 17**

The contents of these points are related with policy of employment adopted by the company, socio economic development in the area and CSR funds. Desired investigation in the issues may be conducted by concerned competent department. As per records of company detail of CSR expenditure in last 5 FYs is as below:

Financial Year	CSR Expenditure in Rs.
2016 – 17	32,00,00,000
2017 – 18	23,33,00,000
2018 - 19	29,67,00,000
2019 – 20	26,36,50,000
2020 – 21	16,47,00,000

- **Point no. 18**

The contents of these points are related with policy matter and may be decided at level of State Government.

In matter of the issue related with non fulfillment of different commitment made by M/s Vedanta Limited - Cairn Oil & Gas, at time of public hearings for obtaining environmental Clearance from competent authority, it is to submit that in compliance of prescribed procedure of conducting public hearings the State Pollution Control Board forwards minutes of hearing to concern competent authority i.e. MoEF & CC/SEIAA. In these minutes complete details of all issues raised by participants and reply/commitments made by the applicant are included and forwarded along with video recording. Further, the compliance of conditions of environmental clearance is also monitored by concerned authority time to time therefore investigation in this matter may be done by concerned competent authority, if needed so.

During visit 04 more complaints were received from villagers. The contents of these complaints are found similar to the issues mentioned in verification of complaint forwarded by HO. Copies of complaints are enclosed as ANNEXURE- for kind perusal and needful.

Recommendations-

- *Problem of cracks in houses as mentioned in the complaint is prevailing in the area around wellpads however, "Hydraulic fracturing" being a commonly used practice in Oil & Gas production sector, demand of complainants regarding ill effects & ban of the process may be further examined and decided only by the concerned competent authority engaged in regulation of production process of Oil & Gas sector.*

- *Present practice of storage of waste water adopted by the activity is commonly used practice in crude oil & gas production sector and also permitted in statutory clearances. However, direction may be issued for construction of garland drains with collection tanks around all waste water storage pits, regular maintenance and frequent cleaning/shifting of traces of oil/Crude and waste water for further treatment & disposal in order to avoid the possibilities of seepage, overflow, foul smell and nuisance in surrounding areas.*

- *In light of results of analysis of ground water samples collected from vicinity of Mangla Process Terminal (ANNEXURE-II) and details mentioned in para 3 of Point no.1 of this report, direction may be issued to M/s Vedanta Limited - Cairn Oil for conducting scientific study engaging an expert agency/ institute for assessing impact of the activity on ground water and to provide more community RO plant in villages around MPT for meeting out requirement of drinking water.*

- *M/s Vedanta Limited - Cairn Oil & Gas may be advised to clean all scrap from green belt site near MPT (Point no 5 of his report) and to stop dumping of scrapped sand containing traces of oil material unscientifically. Further, all dumped material is required to be shifted at en-marked site in order to prevent damage to environment.*

rspcb

RAJASTHAN STATE POLLUTION CONTROL BOARD

- *In order to investigate the issue related with illegal dumping of chemical mud & residues in past the company may be advised to conduct analysis of soil from alleged site reported by complainants (Point no 5 of his report.. This practice may also be applied for other problematic sites, if any.*

- *In order to assess the status of air quality in premise of M/s Vedanta Limited - Cairn Oil & Gas Regional office Balotra may be instructed conducting fresh air monitoring and action may be taken on basis of status of compliance of prescribed standards.*

Submitted for kind perusal and further needful pl

(Amit Sharma)
Senior Env. Engineer

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report					
1	a. Name of the Industry:	Vedanta (Cairn Oil and Gas) Limited			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		Kawas NW Plant	Sar ka Par, Lakhani Meghwalo ki Dhani	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	06.11.2024			
3	Name and designation of the person contacted:	Sh. Gaurav Kumar Yadav, Environment Manager			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Production of Hydrocarbons			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	Operational during visit			
9	List of partners/ directors/ proprietor with addresses:	-			
10	Status of consent under the Water Act, 1974:	Unit has obtained the CTO vide letter dated 26/10/2023 with validity upto 31/10/2028			
11	Status of consent under Air Act, 1981:	Same as above			
12	Status of authorization under HWM Rules	Unit has obtained the Authorization vide letter dated 11/12/2023 with validity upto 28/02/2029			
13	Name of raw materials with quantity (per day or month or annum)	Flow back water generated from drilling activities			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Solid –Liquid separation unit – 300 KLD			
15	Water related:				
1.	Water sourced from CGWA authorized Ground Water Source	Water sourced from CGWA authorized Ground Water Source			
2	Digital meters – records are maintained in form of digital data	Provided			
3	Meter readings records available.	-			
4	Metering arrangement for water consumption in various process/ use	-			
5	Water consumption process/ purpose wise	Domestic and intermittently for other operational activities			
6	Logbook maintained	Maintained			

16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning and maintenance of the well is being collected & solar evaporated in the HDPE lined pit. Domestic wastewater is treated through onsite septic tank followed soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-
18		In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): Provided	
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	Neutralization→Precipitation→ Coagulation→flocculation→ filtration→treated water Sludge water→filter press→sludge
	B	Operational status of ETP units at the time of inspection:	Operational
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	Yes
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharge in solar pond for evaporation and domestic waste water in septic tank followed by soak pit.
21		Recycle of treated effluent (if any)	Treated effluent is being sent to Mangala 3/6 well pad for injection to the oil reservoir.
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-
26		Method of conveyance of wastewater from industry to CETP:	-
27		Adequacy of the CETP for total effluent reaching CETP	-
28		Details of air pollution:	

A		Process Stacks:					
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	-	-	-	-	-	
	i)	Status of energy meter & hour meter	Not Applicable.				

	ii)	Status of logbook of operation and meter	Not Applicable.					
B		Flue gases stacks						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	1	-	-	-	-	-	-	
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.						
	S. No.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: Not Applicable						
	A	For Liquid For Hazardous Waste (Solid) If Combined	-					
	B	Status of operation at the time of Inspection:	-					
	C	Temperature °C	Primary Chamber	-				
			Secondary Chamber	-				
	i)	Status of energy meter & hour meter	-					
	ii)	Status of logbook of operation and meter	-					
E		Details of D. G. Sets -						
	Sr. No.	Rating	Status of Acoustic enclosure	Details of Stack (mtrs)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?		
	1	2 X 65 KVA	Provided	-	Adequate	-		
	2	1 X 125 KVA	Provided	-	Adequate			
	3	1 X 100 KVA	Provided	-	Adequate			
F		Source of foul odor and measures taken to control, if any: foul smell was observed at the site.						
30		Fly ash management with all details, if applicable: Not Applicable.						
31	A	Details about Hazardous Waste Management: Details as per HWA application submitted are provided below.						

	Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
	1.	Used or spent oil	5.1	1 KL/Annum Reuse/Sales to Registered Recycler/ Reprocess
	2.	Waste/residue containing oil	5.2	2 MT/Annum SLF/Co-processing/Incineration/Sales to registered recyclers
	3.	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	2 MT/Annum Sales to Registered Recycler
	4.	Contaminated cotton rags or other cleaning materials	33.2	2 MT/Annum Incineration/Co-processing
	5.	Concentration or evaporation residues	37.3	50 MT/Annum SLF/Co-processing
	6.	Chemical sludge from waste water treatment	35.3	100 MT/Annum SLF/Co-processing

32		Verification and irregularities/ gap found in manifests	-
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-
34	Whether industry is a member of TSDF site or not? Cairn has its own captive TSDF facility at MPT		
35	A	Status of logbook for hazardous waste:	Maintained
	B	Status of display board of size 4' x 6' at the main gate	Board displayed at site
	C	Status of display board at the storage area	Displayed
36		Electric service number	Captive Power from MPT
37		Water service number	Water sourced from authorized ground water source Thumbli
38		Other relevant information regarding the industry, including complaints	A complaint received from shri Babulal Jakhar, Sar ka Par, Bandra, Barmer through CPCB regarding releasing chemical water in their farm
39		Details of water/ wastewater sample collected during inspection	Analysis report enclosed
40		Details of air /emission sample collected during inspection	Not taken
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Not Complied
42	Cess verification		
	A	Consumption of water in different categories for cess assessment	Water consumption is being reported in the monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e., effective from 1st July'17).
		Category- I	
		Category – II	
		Category – III	
		Category – III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-

	C	Details of the deposition of cess	-
43		Other observations:- a. During visit no chemical water/ waste water was observed at farm of complainant. However four water storage pits were found within premise of the site, which were used for temporary storage of waste water containing mud or traces of crude/oil. It was observed that maintenance of waste water storage pits required to be more improved in order to avoid possibility of overflow of wastewater as the height of bund wall is too short. b. Unit has not provided the garland drains around all waste water storage pit. c. Unit has installed the ETP of capacity 06 KL/Hr, whereas unit obtained the consent for solid liquid separation @ 300 KLD. d. Emissions of dust particles were found during transportation of vehicles in the unit premises and no arrangement for water spraying on approach road have been observed. e. The sludge generated from waste water treatment was found lying in haphazard manner in the unit premises. No separate room/storage facility was provided for the storage of sludge. f. Foul smell was observed at the site during visit. g. Sample analysis results dated 13/11/2024 & 25/11/2024 of the sample collected on 06/11/2024 from the outlet of ETP reveals that the parameters at the outlet of ETP does not confirm to the standards prescribed in respect of, TSS - 154 mg/l (limit 100 mg/l), COD - 719 (limit 100), BOD - 138 mg/l (limit 30 mg/l), TDS – 5248 (limit 2100 mg/l) and Chloride - 700 mg/l (limit 600 mg/l) as per Consent to Operate dated 26/10/2023 conditions.	
Recommendation: In light of aforementioned facts, a show cause notice for intended revocation of CTO and intended direction for closure may be issue to the unit.			
4. (Jitendra) JEE			6047 (Dalpat) JSO
C/s (Rajkumar Sehra) Sr. Environmental Engineer Regional Officer			

FORM - X

RAJASTHAN STATE POLLUTION CONTROL BOARD

REPORT OF THE STATE BOARD ANALYST

(See Rule - 24)

Report No. : **1270**

Report On : **13/11/2024**

I hereby certify that I **Dr. Narain Bhoot**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **07/11/2024** from **Dalpat Singh, JSO, Balotra ,RSPCB Balotra** a sample of **Waste Water** of **M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - , , Tehsil- Barmer , District- Barmer** Collected from **KAWAS NW -Outlet of ETP** Collected on **06/11/2024**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **13/11/2024** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	7.33
2	Total Suspended Solids mg/l	154
3	Chemical Oxygen Demand (COD) mg/l	719
4	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	138
5	Oil & Grease mg/l	9
6	Total Dissolved Solids mg/l	5248

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **13/11/2024**

Dr. Narain Bhoot

BOARD ANALYST

Rajasthan State Pollution Control Board

Regional Office Balotra

Regional office,Rajasthan state pollution control Board,Jasol phanta,OppJDVVNL office,Jasol Road Balotra,District -Balotra

Phone: 9667576064

Fax: 9667576064

Signature Not Verified

Digitally signed by Narain Bhoot
Date: 2024.11.13 11:30:14 IST
Reason: SelfAttested
Location:

FORM - X

RAJASTHAN STATE POLLUTION CONTROL BOARD

REPORT OF THE STATE BOARD ANALYST

(See Rule - 24)

Report No. : **4711**

Report On : **25/11/2024**

I hereby certify that I **Deepak Ojha**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **14/11/2024** from **Dalpat Singh, JSO, Balotra ,RSPCB Balotra** a sample of **Waste Water of M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - Kawas NW [24118] ,Kawas NW Village Sar Ka Par , Tehsil- Barmer , District- Barmer** Collected from **KAWAS NW -Outlet of ETP** Collected on **06/11/2024**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **25/11/2024** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	Zinc as Zn mg/l	0.572
2	Copper as Cu mg/l	NT
3	Nickel as Ni mg/l	NT
4	Lead as Pb mg/l	NT
5	Total Chromium as Cr mg/l	0.635
6	Chloride as Cl mg/l	700
7	Sulphate as SO_4 mg/l	692
8	Fluoride as F mg/l	0.72

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **25/11/2024**

Deepak Ojha

BOARD ANALYST

Rajasthan State Pollution Control Board

Regional Office Jodhpur

SPL-I, Phase-I, Basni Ind. Area, Jodhpur

Phone: 0291-2723225

"Groundwater Pollution Concerns in Barmer Region: Cairn Oil & Gas Investigation"

- **Issue Raised in Lok Sabha**:
- Hon'ble Member of Parliament, Shri Ummeda Ram Beniwal, raised a concern regarding groundwater pollution in the Barmer region, allegedly caused by M/s Cairn Oil & Gas, Vedanta Ltd.
- The key issue is the improper disposal of contaminated water into borewells by the company, leading to the contamination of nearby farmlands. This has caused crop damage and raised health concerns for the local population.
- **Official Response and Visit**:
- In response to the issue, an official visit was conducted on 13.08.2024 by the Central Pollution Control Board (CPCB) officials to the Mangala Processing Terminal (MPT) of Cairn Oil & Gas and surrounding areas.
- The visit aimed to assess the environmental concerns, particularly groundwater pollution, as highlighted by the Lok Sabha memorandum (ZH/XVIII/II/2024/LSS/TO/982 dated 01.08.2024) and the CPCB communication (F. No. CP-99/87/2024 IPC-I-HO-CPCB-HO dated 05.08.2024).
- **Show Cause Notice:**
- Following the visit, the CPCB issued a show cause notice to Cairn India on 27.09.2024 based on the findings and observations made during the investigation.
- **Meetings and Discussions:**
- The State Board on 24/09/2024 nominated the Regional Officer to coordinate with the officials of the Directorate General of Hydrocarbons, Govt. of India.
- Key meetings were held on 07/10/2024 with officials to discuss environmental assessments. The Regional Officer of Balotra, along with Sh. Gada Lal Das (HOD, Environment, Directorate General of Hydrocarbons, Govt. of India), officials from the Central Ground Water Board (CGWB) in Jodhpur and Cairn officials participated in the meeting.
- The purpose of the meeting was to address concerns regarding the environmental impact of Cairn's operations and plan further assessments specifically the ground water related issue.
- **Groundwater Sampling and Analysis:**
- On 7-9 October 2024, groundwater samples from affected **borewells (05 in No.'s) were collected along with piezometric wells alos called observation wells (20 in No's)** and ETP (Inlet/outlet)/SRP reject of the Cairn India (Kawas NW).
- The samples were sent to the Rajasthan State Pollution Control Board (RSPCB) Central laboratory in Jaipur.
- Initial physical observations revealed that several farmers' borewells near the Mangla Processing Terminal (MPT) region showed discoloration in the water, which cleared after a few minutes. One such borewell, owned by Sh. Bheraram (M.No. 9950469669), located at a depth of 400 ft, has been experiencing discoloration for the past

year. Another borewell, owned by Sh. Rooparam (M.No. 7568684671), with a similar depth of around 400 ft and 7 years of use, has faced the discoloration issue for the last 1.5 years. Additionally, other farmers, including Sh. Poonamaram from Village Jogasar, reported similar problems of water discoloration, all pointing to a possible link between these issues and the operations of Cairn Oil & Gas in the region.

The water showed a light discoloration for a few initial minutes.

followed by a darker discoloration and then the clear water after few minutes.

➢ **Cairn's Defence:**

1. **Oil Reservoirs Depth**:
   - Cairn Oil & Gas asserted that the oil reservoirs are located over 1000 meters below the surface, significantly deeper than the freshwater aquifers, which, according to the company, prevents any direct contamination of groundwater from oil extraction activities.
2. **Drilling Practices**:
   - The company emphasized that its drilling practices adhere to international guidelines. Specifically, water-based mud is used during drilling, which helps to protect groundwater from contamination by preventing the migration of harmful substances into the water table.
3. **Produced and Reject Water Disposal**:
   - Cairn explained that produced water (water extracted during oil production) is re-injected into the same oil reservoir to help maintain pressure within the reservoir. Additionally, reject water (water that is not suitable for re-injection into the oil reservoir) is injected into abandoned wells at depths greater than 1000 meters, well below the freshwater aquifers, further ensuring that no contamination reaches the local water sources.
4. **Blackish/Reddish Water**:
   - Cairn claimed that the blackish or reddish color observed in some borewell water is due to the presence of iron-rich material (Pyrite – FeS_2) in the aquifer near the producing zone. This discoloration occurs during the initial flow of water and results from a chemical reaction between dissolved pyrite and oxygen. The company pointed out that oxygen ingress occurs because of poor construction of water wells in the affected area.
5. **Smelly Water (Presence of H_2S)**:
   - Cairn attributed the presence of smelly water, specifically with a sulfurous odour (H_2S), to naturally occurring conditions in the aquifer. They referred to reports from 2001, prior to the oil discovery, which indicated the presence of H_2S, CO_2, and high dissolved oxygen in the aquifer. **Copy of report is enclosed and marked as annexure 'B'.**

➢ **Previous Legal Context**:

- The National Green Tribunal (NGT) had previously examined the issue in case O.A. 54/2019.
- The NGT concluded its investigation without issuing specific directives to regulatory authorities on May 30, 2022.

➢ **Oil & Gas Process Overview: Produced Water Re-injection and Reject Water Disposal:**

- Oil extraction from underground reservoirs naturally results in the creation of voids within the rock, which can complicate future extraction. To address this issue and ensure sustained production levels, it is crucial to maintain reservoir pressure. This is achieved by re-injecting treated produced water back into the reservoir. Produced water, which is the saline water

that accompanies oil during extraction, is treated to remove impurities and is then recycled for re-injection into the reservoir to enhance oil recovery.

There are two main types of water injection in oil extraction processes:

1. **Produced Water Re-injection**: This involves re-injecting treated produced water back into the hydrocarbon-bearing reservoir formation to maintain the reservoir pressure and replace the extracted oil.
2. **Reject Water Disposal (SRP Reject and RO Reject)**: This water is incompatible with the reservoir formation and is injected into abandoned wells, typically over 1000 meters deep. This reject water is isolated from the hydrocarbon reservoir, ensuring no contamination or communication between the two formations.

➢ **Injection Well Design and Purpose:**

Injection wells, like production wells, are designed similarly in terms of depth and structure. However, their purpose is distinct:

- **Injection wells** are used to re-inject water (such as produced or flow-back water) into the hydrocarbon-bearing formations to maintain reservoir pressure.
- **Production wells** are used to extract crude oil, natural gas, and formation water (produced water) from the reservoir. Importantly, injection wells play a vital role in the hydrocarbon extraction process, while disposal wells are used for reject wastewater, which is incompatible with the reservoir formation. This reject water is injected into deep, isolated compartments to prevent any risk of contamination to the hydrocarbon reservoir.

Freshwater Aquifer and Reservoir Formation:

- In the Mangala field, the freshwater aquifer is located between 40 to 150 meters depth, whereas the hydrocarbon reservoir is approximately 1000 meters or deeper as reported. Between these two layers lies an **850-meter thick impervious layer**, which acts as a natural barrier, preventing communication between the freshwater aquifer and the hydrocarbon reservoir.
- The produced water reinjection process follows standard industry practices, wherein the same water is treated and recycled into the reservoir. However, reject water, which is unsuitable for reinjection due to its composition, is disposed of in abandoned wells, which are located at depths exceeding 1000 meters.

Regulatory Compliance for Reject Water Disposal:

- For reject water disposal into abandoned wells, specific parameters are mandated under the **GSR 546 (E)** regulation by the Ministry of Environment, Forest, and Climate Change (MoEF&CC). These include:
  - Total Suspended Solids (TSS) levels should be below **100 mg/L**.
  - Oil & Grease (O&G) levels must be below **10 mg/L**.
  - The depth of the abandoned well should exceed **1000 meters** to ensure isolation from hydrocarbon-bearing formations.
- As per the consent accorded by the State Board the Standard prescribed as: ***That the trade effluent shall be treated before***

disposal so as to conform to the standards prescribed under the Environment (Protection) Act-1986 for disposal Into Inland Surface Water. The main parameters for regular monitoring shall be as under:

Parameters	Standards
Total Suspended Solids	Not to exceed 100 mg/l
pH Value	Between 5.5 to 9.0
Oil and Grease	Not to exceed 10 mg/l
Biochemical Oxygen Demand (3 days at 27°C)	Not to exceed 30 mg/l
Mercury (As Hg)	Not to exceed 0.01 mg/l
Lead (as Pb)	Not to exceed 0.1 mg/l
Nickel (as Ni)	Not to exceed 3.0 mg/l
Cyanide (as CN)	Not to exceed 0.2 mg/l
Sulphide (as S)	Not to exceed 2.0 mg/l
TDS	Not to exceed 2100 mg/l
% Sodium	Not to exceed 60 mg/l
Chromium (Hexavalent)	Not to exceed 0.1 mg/l
Fluoride (as F)	Not to exceed 1.5 mg/l
Temperature	Not to exceed 40°C
Zinc	Not to exceed 2 mg/l
Chemical Oxygen Demand	Not to exceed 100 mg/l
Sulphates	1000 mg/l
Phenolics	Not to exceed 1.2 mg/l
Chromium (Total)	Not to exceed 1.0 mg/l
Chlorides	Not to exceed 600 mg/l

Solid-Liquid Separation Unit (ETP) at Kawas NW

- The **Solid-Liquid Separation Unit** at Kawas NW is responsible for treating flow-back water generated from well services/drilling operations, primarily in the Mangala, Bhagyam, and Aishwariya fields. The unit serves as a critical component in the treatment and recycling of this flow-back water. Here's an overview of its operation:

1. **Collection**: Flow-back water from various drilling sites is transported to the Kawas NW well pad via mobile tankers, where it is stored in a HDPE-lined (~1500 micron) pit.
2. **Chemical Dosing and Treatment**: The water undergoes chemical treatment using Hydrochloric Acid (HCl) to maintain the pH and Poly Aluminum Chloride (PAC) as a coagulant to accumulate sludge particles for separation.
3. **Coagulation and Flocculation**: After coagulation and flocculation, the treated water is sent to a **plate separator chamber (lamella),** where gravity separates free oil and fine solids.
4. **Clarification**: The water then flows to a **tube clarifier unit** for further separation, where only clarified water is allowed to pass.
5. **Filtration**: The clarified water undergoes filtration through a **pressure sand filter** or **dual media filter** to remove any remaining impurities. The filtered water is stored in intermediate tanks.

6. **Sludge Management**: The separated sludge is concentrated further by dosing polymer, and then it is removed using a **filter press unit** for disposal.

- The treated water, with **TSS below 100 mg/L** and **Oil & Grease levels below 10 mg/L**, is sent to the **Mangala 3/6 well pad** for injection into the oil reservoir, specifically into the FM-4 and FM-5 formations. These formations are situated at depths ranging between **1150 to 1500 meters**, ensuring proper reinjection of the treated produced water.

➢ **The analysis and its inclination:**

Since the matter pertains to groundwater contamination affecting local farmers in the vicinity of the Mangala Processing Terminal (MPT) region, the Rajasthan State Pollution Control Board (RSPCB) officials have collected and analyzed groundwater samples from both the piezometric wells of Cairn Oil & Gas and the borewells of the farmers. To assess the extent of contamination and determine whether the water quality meets acceptable standards, it would be prudent to compare the results with the Indian Standards for groundwater as prescribed by the Bureau of Indian Standards (BIS). This comparison will help to evaluate if the water from these sources meets the prescribed safety limits for parameters ensuring the health and safety of the local population.

Condition of Farmer's Borewells Based on the Overall Assessment

After reviewing the overall analysis of the water samples from the **farmers' borewells**, several important conclusions can be drawn. These conclusions are based on the water quality parameters compared to the **Indian Standard for Drinking Water (2012)**, focusing on the **Manganese (Mn)**, **Nitrate Nitrogen**, **Total Kjeldahl Nitrogen (TKN)**, **Total Solids**, and **Oil & Grease** levels in the borewell samples.

Key Findings for Farmer's Borewells

1. **Manganese (Mn)**:
   - Some borewell samples, such as **Umaram Sen Borewell** (0.678 mg/L) and **AI3OBW03** (1.53 mg/L), show **manganese levels that exceed the permissible limit** of **0.3 mg/L**.

- **Excessive manganese** in water can lead to problems like staining of laundry, plumbing, and poor taste. It can also be harmful to human health if consumed over a long period.
- **Conclusion**: **Farmer's borewells** like **Umaram Sen** and observation wells like **AI3OBW03** need treatment to reduce manganese concentrations, as the levels exceed the permissible standards.

2. **Nitrate Nitrogen (NO_3)**:
   - Several borewells, shows high **Nitrate levels.**
   - **High Nitrate levels** in drinking water can cause serious health issues.
   - **Conclusion**: These borewells are unsafe for consumption without treatment to reduce **Nitrate nitrogen** levels.
3. **Total Kjeldahl Nitrogen (TKN)**:
   - Many of the samples from Farmer's borewells show **high TKN values** (e.g., **Borewell of Sh. Bheraram (3.08 mg/L)** and **Mangala Processing Terminal (134 mg/L)**).
   - **High TKN** indicates organic pollution and contamination, which can contribute to the growth of bacteria and other pathogens, making water unsuitable for consumption without proper treatment.
   - **Conclusion**: Farmer's borewells like **Bheraram** and **others** show elevated TKN levels, which can affect water quality. These bore well's water need to be treated, such as through **filtration** or **biological treatment**, to reduce nitrogen content.
4. **Total Solids (T. Solids)**:
   - Many samples, especially from **Mangala South 01 Well (13,938 mg/L)** and **NAGOBW01 (11,504 mg/L)**, have **extremely high total solids levels.**
   - High total solids generally indicate the presence of suspended particles, salts, and other contaminants, which can impact water clarity, taste, and usability for agricultural and domestic purposes.
   - **Conclusion**: The Farmer's borewells show **high levels of total solids**, which suggests that **water filtration** or **reverse osmosis** may be necessary for effective treatment.
5. **Oil & Grease**:
   - Although **oil and grease** levels were not directly tested, the high **total solids** levels suggest a likely presence of **oil and grease** in the water, especially in areas where oil-based activities are prevalent.
   - **Conclusion**: **Oil and grease** removal technologies (e.g., **coalescers, separators**) may be needed if contamination is confirmed.
6. **COD:**
   - The presence of COD in **Mangla Terminal Produced water**, and **Borewell of Sh. Umaram** also raise a concern and shows a inclination of presence due to industrial activity in the area.

Overall Assessment of Farmer's Borewells

- **Water Quality Issues**:
  - **Manganese and Iron is exceeding permissible limit and presence of nitrate nitrogen, TKN**, and **total solids**, indicates that the water quality in many Farmer's borewells is **poor** and may not be suitable for drinking or even irrigation without appropriate treatment.
- **Potential Risks**:
  - High levels of **manganese** and **nitrate** are concerning for human health, especially infants, as they can cause serious health problems.
  - The presence of **high TKN** and **total solids** suggests organic contamination and suspended particulate matter, which can lead to issues like bacterial growth and clogging of irrigation systems.
- **Treatment Needs**:
  - **Manganese Removal**: Borewells with manganese levels above the permissible limit (e.g., **AI3OBW03**) will require **manganese removal** through filtration or other treatment methods.
  - **Nitrate Reduction**: Borewells with high nitrate nitrogen content (e.g., **AI3OBW01**) need to be treated to reduce Nitrates, possibly using **biological treatment** or **ion exchange**.
  - **Filtration**: High levels of **TKN** and **total solids** indicate the need for **filtration** or **reverse osmosis** to improve water quality.
  - **Oil & Grease Removal**: Oil Separator should be used to ensure that the water meets the required standards.

Conclusion for Farmer's Borewells

Based on the assessment, the water from many Farmer's borewells is **unsafe for direct consumption** without treatment. The **excessive presence of contaminants** such as **manganese**, **nitrate**, **TKN**, **Iron** and **total solids** necessitates the use of appropriate **water treatment technologies** to ensure the water is safe for drinking and irrigation.

They may need to invest in **filtration systems**, **reverse osmosis**, and **chemical treatments** to **reduce contaminants** and improve the quality of water from their borewells. Regular monitoring of water quality is also essential to prevent health risks and maintain sustainable agricultural practices.

The Overall Assessment of ETP performance and Sulphate Removal Plant (reject characteristics):

- **ETP Performance**: The ETP has performed **well overall** in reducing suspended solids, COD, and turbidity, effectively treating the effluent water to lower pollutant levels. However, some parameters, such as sulphate and hardness, still remain high, indicating room for improvement in the treatment process, particularly in reducing sulphate and hardness in the treated water.
- **Sulphate Removal Plant Performance**: The Sulphate Removal Plant, while effective in reducing some contaminants still produces a reject stream with **high sulphate and hardness** concentrations. This suggests that the plant's ability to handle sulphate removal could be

optimized to prevent high levels in the reject water, which is being injected into the deep dump well.

Recommendations:

- **Optimize Sulphate Removal**: Improve the sulphate removal process in the Sulphate Removal Plant to reduce sulphate and hardness levels in the reject water before it is injected into the deep ground dump well.
- **Reject Water Monitoring**: Regularly monitor the composition of the reject water to ensure it complies with environmental standards and does not negatively impact groundwater quality or surrounding ecosystems.
- **Alternative Disposal Methods**: Explore alternative methods for handling and disposing of reject water to minimize environmental impact, such as treatment to bring it within acceptable limits for reinjection or re-use.
- **Environmental Impact Assessment**: Conduct an in-depth environmental impact assessment (EIA) for the long-term effects of deep well injection of reject water, especially considering its potential impact on groundwater quality in the region.
- **Collaboration with Farmers**: Work collaboratively with local farmers to monitor the quality of groundwater in areas surrounding the oil exploration activities to identify and address any potential contamination caused by the reject water injection.
- **Public Awareness and Transparency**: Maintain transparency in the monitoring and treatment processes, providing regular updates to local communities and stakeholders to ensure confidence in the measures being taken.

Dr. Narayan Bhoot
Supt.Sci.Officer & Lab. Incharge,
RSPCB, Balotra

Raj. K. Sehra
SEE & Regional Officer,
RSPCB, Balotra

Comparative Statement of Cairn Energy Piezometric Tubewell

Sr. No.	Date of Collection	Point of Sample Collection & Location	Amm. N as N	TDS	Phenolphthalein Alkalinity	Sulphide as	Colour	pH	Total Suspended Solids	COD	Oil & Grease	Cu	Zn	Ni	Pb	Cd
Indian Standard DRINKING WATER — SPECIFICATION 2012 – IS: Requirement (Acceptable Limit)						0.05	5	6.5-8.5				0.05	5	0.02	0.01	0.003
Indian Standard DRINKING WATER — SPECIFICATION 2012 Permissible Limit in the absence of alternate source						0.05	15	No relaxation				1.5	15	0.02	0.01	0.003
1	[illegible]	Kuwan SW Inlet of ETP	-	-	-	-		[illegible]	[illegible]	[illegible]	144	-	-	-	-	-
2	[illegible]	Kuwan SW Outlet of ETP	NT	[illegible]	NT	NT	[illegible]	[illegible]	26	[illegible]	3.8	NT	NT	NT	NT	NT
3	[illegible]	Sulphate Stream of Plant [illegible]	NT	[illegible]	NT	NT	Clear	7.27	88	15.2	NT	NT	NT	NT	NT	NT
4	[illegible]	Mangala [illegible] well no. 22	NT	[illegible]	NT	NT	Clear	[illegible]	12	[illegible]	NT	NT	NT	NT	NT	NT
5	[illegible]	Borewell of [illegible]	NT	[illegible]	NT	NT	Clear	[illegible]	8	[illegible]	NT	NT	NT	NT	NT	NT
6	[illegible]	Borewell of [illegible]	NT	[illegible]	NT	NT	Light Brown	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	NT
7	[illegible]	Borewell of [illegible]	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	NT
8	[illegible]	Mangala Processing Terminal Produced Water	[illegible]	[illegible]	NT	NT	Light Brown	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT
9	[illegible]	Borewell of [illegible]	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
10	[illegible]	Borewell of [illegible]	NT	[illegible]	NT	NT	Grey	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	NT	NT	NT
11	[illegible]	MPT-OBW51	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
12	[illegible]	MPT-OBW52	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	NT
13	[illegible]	MPT-OBW53	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	NT
14	[illegible]	MPT-OBW54	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
15	[illegible]	MPT-OBW55	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
16	[illegible]	MPT-OBW56	NT	[illegible]	NT	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
17	[illegible]	MPT-OBW57	NT	[illegible]	[illegible]	NT	Clear	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	NT
18	[illegible]	[illegible]	NT	[illegible]	[illegible]	NT	Brown	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	Brown	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	NT
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	Grey	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	Light Brown	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
22	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	Light Brown	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
23	[illegible]	[illegible]	NT	[illegible]	[illegible]	NT	Light Brown	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	NT	NT	NT
24	[illegible]	[illegible]	NT	[illegible]	[illegible]	NT	Light Brown	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT
25	[illegible]	[illegible]	NT	[illegible]	[illegible]	NT	Light Brown	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	NT	NT	NT

Sr. No.	Fe	Cr	Cl	SO4	TH	CaH	MgH	Ca	Mg	NH4 Total as N	NO_3	F	Na	K	TDS	EC	T. Alk	Turbidity	Mn	Boron	TKN	E. Coli
Acceptable Limit	[illegible]	0.050	250	200	200			75	30		45	1			500		200	1	[illegible]			
Permissible Limit	[illegible]	0.05	1000	400	600			200	100		45	1.5			2000		600	5	[illegible]			
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	[illegible]	-	-	-	-	-	-	-
2	1.2	NT	[illegible]	[illegible]	112	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]
3	1.2	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]		-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]
4	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	NT	[illegible]
5	NT	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	NT	NT	NT	[illegible]	[illegible]
6	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	[illegible]
7	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	NT	NT	NT	[illegible]	[illegible]
8	1.11	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	1.27	[illegible]	1	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]	[illegible]	[illegible]
10	[illegible]	NT	[illegible]	403	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	[illegible]
11	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	3.47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	[illegible]
12	NT	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	47.89	2.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	[illegible]
13	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	112	[illegible]	[illegible]	NT	[illegible]	2.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	[illegible]
14	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	[illegible]
15	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	NT	[illegible]
16	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	NT	NT	[illegible]
17	NT	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.88	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]
25	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Comparative Statement of Cairn Energy Piezometric Tubewell

Indian Standard DRINKING WATER — SPECIFICATION 2012 BIS, Requirement (Acceptable Limit)							0.05	5	6.5-8.5				0.05	5	0.02	0.01	0.05	0.3	0.003	250	200	200			75	30		45	1			500		200	1	0.1			
Indian Standard DRINKING WATER — SPECIFICATION 2012 BIS, Permissible Limit in the absence of alternate source							[illegible]	15	No relaxation				1.5	15	0.02	0.01	0.05	0.3	0.003	1000	400	600			200	100		45	1.5			2000		600	5	0.3			
Sr. No.	Date of Collection	Point of Sample Collection & Location	Ammonical Nitrogen as N	TKN	Phenolic compounds	Sulphide as	Colour	pH	Total Suspended Solids	COD	Oil & Grease	Cu	Zn	Ni	Pb	Cr	Fe	Cd	Cl	SO4	TH	CaH	MgH	Ca	Mg	[illegible]	NO_3*	F	Na	K	TDS	EC	T. Alk.	Turbidity	Mn	[illegible]	DO	% Sodium
26	[illegible]	[illegible]	NT	0.61	NT	NT	Light Brown	7.71	180	12.5	NT	NT	0.023	NT	NT	NT	26.91	NT	1800	835	635	85	550	13	25	NT	174	1.01	891	5	3876	4775	135	32.6	0.369	0.137	NT	1730
27	[illegible]	[illegible]	NT	7.94	80	NT	Light Brown	8.01	830	15	NT	NT	0.115	NT	NT	05	22.48	NT	1845	277	418	71	136	20	45	NT	15.73	1.1	1092	6	4496	5141	82	1.11	0.408	0.008	NT	[illegible]
28	[illegible]	[illegible]	NT	[illegible]	14	NT	Light Brown	9.46	98	21.8	NT	NT	[illegible]	NT	NT	CT	16.31	NT	720	13.5	40	25	22	6	4	NT	178	1.11	832	4	1100	1704	170	1.17	0.437	[illegible]	NT	239
29	[illegible]	[illegible]	NT	14.9	13	NT	Blackish	8.1	120	25	NT	NT	NT	NT	NT	NT	87.69	NT	1461	91	103	180	80	72	11	NT	11.42	4.703	1170	7	2644	3344	40	7.24	0.72	NT	NT	602
30	[illegible]	[illegible]	NT	2004	26	NT	Blackish	9.8	216	20	NT	NT	NT	NT	NT	NT	171	NT	1450	34.7	76	20	76	9	14	NT	15.83	1.1	786	4	2268	1100	330	0.87	2.8	NT	2.31	2084

* In analysis report values of Nitrate is as N, which has been converted as NO_3.

There should not be presence of Ammonical Nitrogen, Total Kjheldahl Nitrogen, Suspended Solids, Chemical Oxygen Demand (COD), Oil and Grease but in few samples these parameters are present. This may be either due to geographic conditions or contamination due to antropogenic activity.

Ankur Meena, JSO

Dr. Narain Bhoot, Suptd. S.O.

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FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) Central Polymer Facility (CPF) plant
2	Complete Postal Address of the Industry	Village - Jogasar Kuan Jogasar Kuan Tehsil:Baytau District:Barmer, Rajasthan
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'17.01"E 25°57'6.19"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore
9	Name and Designation of the officials visiting the Unit	1.Sh. Bhala Ram Siyag, Assistant Environment Engineer 2. Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is facility for preparation of polymer mother solution, which is being used for injection into hydrocarbon reservoirs at well pads for enhance oil recovery. Polymer powder (non-haz in nature) is brought at site through road trailers and offloaded in silos at CPF plant. Polymer mother solution of required concentration is being prepared here by mixing the polymer powder with hot water (suppliec through pipeline from MPT). Polymer mother solution is being sent to different well pads through pipelines for injection. Power is being sourced from captive power plant at MPT and EDGs are provided for power backup. Hazardous waste like used/spent oil, oily rags etc. generated from maintenance of EDG and other engines. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	November 2014
12	Production (in MT or KL/ Day) of each product	Sr. No: 1 — Product: Concentrated Polymer Solution or Mother Solution — Type: Product — Quantity with unit: 530.00 M³/HOUR
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2018-2019/HDF/2699 dated 28/08/2018 and valid till 31/10/2022
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2018-2019/HDF/2699 dated 28/08/2018 and valid till 31/10/2022

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15 Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization):

Detail of Fresh HWA Application: **Application ID** 275572 **Unit ID** 24118
Date of Application: 23/02/2021

Schedule	Category/code name	Quantity/unit	Storage capacity	Mode of Disposal	Nature of waste
I	5.1 Used or spent oil	24 KL/Well/Annum	24	Recycling/ reprocessing	Recycling/ reprocessing
I	33.1 Discarded containers/Barrels/Liners used for hazardous wastes/chemicals	12 MT PER/Well/ Annum	12	SLF/Sale to authorized recycler/reuse	other
I	33.2 Contaminated cotton rags and other cleaning materials	12 MT Per/Well/ Annum	12	Incineration/ Coprocessing	Incinerable

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Polymer Mother Solution Preparation	NA	Polymer power is being used for preparation of polymer mother solution, which is non-hazardous in nature	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Mother Solution: ~500 m3/hr	Polymer power is being used for preparation of polymer mother solution, which is non-hazardous in	Mother Solution: 459 m3/hr	Polymer power is being used for preparation of polymer mother solution, which is non-hazardous in	Nil		Used/spent Oil (Cat. 5.1)	~4 KL

							nature		nature			

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details: Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open but with proper bund walls around the pits to avoid rainwater intrusions
   (iii) Capacity: Size: 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Nil	NIL	NIL	NIL	Nil	02.08.2021 (used oil transferred to MPT for reprocess)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules: Yes

19	Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

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Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incneratcn	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.
Used oil generated from EDG maintenance transferred to MPT for reprocess in system.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.	
	Please make observations on the below: 1. Adequate packing of HW: No Waste Generated 2. Labeling of HW containers in form 8: Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing: Yes, as per requirement. 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988: Authorized Vehicles used 9. Daily records maintenance in Form 3: Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC: Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contaminated sites if any, within and outside the industry premises	Nil

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24	Remarks	---

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 23/02/2021 (application id: 275572 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Regional Office
Rajasthan State Pollution Control Board
Jasol Fanta, Opp. JVVNL Office, Balotra, Dist. Barmer
Email ID - ro.balotara@gmail.com

RPCB/RO/Balotra/BI-545/1654 Date: 07/01/2022

SEE & GIC (HOGM),
Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri,
Jaipur.

Sub: - Inspection report of Operation Base at Mangala Field of M/s Vedanta Limited (Cairn Oil & Gas)

Ref.:- H.O. Email dated 07/12/2021.

Sir,

Apropos above, please find enclosed inspection report of Operation Base at Mangala Field of M/s Vedanta Limited (Cairn Oil & Gas) for Hazardous Waste Authorization (Application ID 275742, Unit ID 24118).

Humbly submitted for information and necessary action please.

Encl. :- As above.

Yours faithfully,

(Rajkumar Sehra)
Regional Officer,
RSPCB, Balotra

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) Operations Base at Mangala Field
2	Complete Postal Address of the Industry	Village Nagana, Tehsil Baytu District- Barmer, Rajasthan
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	25°56'23.19"N 71°29'34.42"E
6	Email	**RJON.EnvironmentManagerMPT@cairnindia.com**
7	Date of Inspection	15/12/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R Jat, Chief Manager Environment-Onshore
9	Name and Designation of the officials visiting the Unit	JITENDRA DABI, JEE RSPCB, BALOTRA
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is accommodation facility for crew working in oil field. There is only accommodation bunks, pantry and other amenities are provided for stay of work force working for Hydrocarbon Exploration and Extraction. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	March 2010
12	Production (in MT or KL/ Day) of each product	**Sr. No** | Particular | Type | Quantity with Unit 1 | Operation Base | Activity | 650 persons Accommodation
13	Status of Consent under the Water Act, 1974	Consent granted vide order No.: **2019-2020/HDF/2975** dated 11/03/2020 and valid till 29/02/2024
14	Status of Consent under the Air Act, 1981	Consent granted vide order No.: **2019-2020/HDF/2975** dated 11/03/2020 and valid till 29/02/2024
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste	

(HW) authorized

Detail of Fresh HWA Application: **Application ID** 275742 **Unit ID** 24118
Date of Application: 28/07/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Used or spent oil	5.1	5 KL/Annum Sales to Registered Recycler/ Reprocess

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used		Actual quantity of HW generated			
					During current financial year (as on date of inspection)	During previous financial year	During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input
-1	-2	-3	-4	-5	-6	-7	-8		-9	

	1	Exploration and production of Hydrocarbon	Spent/Used Oil (Category 5.1) 5 KL/Annum	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Not Applicable	Not Applicable	NIL, EDG provided for emergency support only	NIL, EDG provided for emergency support only

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open but with proper bund walls around the pits to avoid rainwater intrusions.
   (iii) Capacity: Size: Not Applicable, in case generation spent oil will be stored in barrels for further disposal.
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No.	Name & Category of HW [as per Column (3) of Table 1]	Actual HW generated in Tonne [sum of Column (6) and (9) of Table 1]	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year)	Actual Quantity (in Tonne) found stored on the day of inspection	Balance (in Tonne) (Column 13 + Column 14)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc.
-10	-11	-12	-13	-14	-15	-16
1	Spent/Used Oil (Category 5.1)	NIL	NIL	NIL	Nil	Nil

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules: Yes

19	Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.
	Please make observations on the below: 1. Adequate packing of HW: No Waste Generated 2. Labeling of HW containers in form 8: Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable

	6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing: Yes 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988: Authorized Vehicles used 9. Daily records maintenance in Form 3: Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC: Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per approved plan
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

Sl. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 to 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled / Utilized	Recycling	Utilization	Pre-processing	Co-Processing	Incineration	Secured Land filling	Sent to whom (please specify S.No .of Table 3A)		

-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Spent/Used Oil (Category 5.1)	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.

Recommendation:

In light of aforementioned facts, industry's application dated 28/07/2021 (application id: 275742 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

Jitendra Dabi
JEE, RSPCB, Balotra

C/s

Rajkumar Sehra
RO, RSPCB, Balotra

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report					
1	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction from Mangla Old Well Pad 04 (PML1-Mangla-Well Pad-04)			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		MWP-04	Jogasar Kuwan	Bayatu	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	13th April 2022			
3	Name and designation of the person contacted:	Mr. Surender Singh, Environment Consultant			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Production of Hydrocarbons			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	-			
10	Status of consent under the Water Act, 1974:	CTO Valid till 30.06.2022. CTO Renewal application with Unit ID 24118 & application No.303531 submitted on 02.03.2022			
11	Status of consent under Air Act, 1981:	Same as above			
12	Status of authorization under HWM Rules	HWA vide authorization No. RPCB/HWM/2021-2022/HDF/HSW/41 valid till 31/10/2026.			
13	Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	As per Existing CTO Crude Oil: 6000 BOPD Natural Gas: 1.2 MMSCFD	As per CTO Expansion application Crude Oil: 6000 BOPD (No Change) Natural Gas: 2.0 MMSCFD		
15	Water related:				
1.	Source of Water	Water sourced from CGWA authorized Ground Water Source			
2	Status of metering arrangement on	Provided			

		Sources	
	3	Meter reading (if meter provided)	-
	4	Metering arrangement for water consumption in various process/ use	-
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
	6	Status of logbook of water drawl and consumption	-
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3. Domestic wastewater is treated through onsite septic tank followed soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Disposal at HDPE lined concrete evaporation pond for natural evaporation within the well pad.
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all):		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharge in solar pond for evaporation and domestic waste water in septic tank followed by soak pit.
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-

26		Method of conveyance of wastewater from industry to CETP:				-		
27		Adequacy of the CETP for total effluent reaching CETP						
28		Details of air pollution:						
A		**Process Stacks:**						
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?	
		-	-	-	-	-	-	
	i)	Status of energy meter & hour meter	-					
	ii)	Status of logbook of operation and meter	-					
B		**Flue gases stacks**						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
	1	Mobile Flare	N. Gas	-	Provided	Stack height	Adequate	Used during drilling and well maintenance
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.						
	S.No.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: Not Applicable						
	A	For Liquid						

		For Hazardous Waste (Solid) If Combined				
	B	Status of operation at the time of Inspection:				
	C	Temperature °C	Primary Chamber			
			Secondary Chamber			
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	2 X 1850 KVA	Provided	-	Adequate	Used only during drilling & well maintenance activity. During inspection, 2 no. DG sets 440 KVA each, 1 no. 500 KVA& 2 no. 62 KVA DG sets found in operation for well testing unit.
	2	2 X 440KVA	Provided	-	Adequate	
	3	3X 500 KVA	Provided	-	Adequate	
	4	3 X 62 KVA	Provided	-	Adequate	
	5	4 X 1500 KVA	Provided	-	Adequate	
F		Source of foul odor and measures taken to control, if any: This facility is not generating any foul order.				
30		Fly ash management with all details, if applicable: Not Applicable.				
31	A	**Details about Hazardous Waste Management:**				
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Reprocess		
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8.00 MT/WELL/Annum SLF/Sale to authorized recycler		
	6	Contaminated cotton rags orother cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered Recyder		

	7	Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess
	8	Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum Captive SLF/Co processing/Incineration/Registered Recyclers
	9	Concentration or evaporation residues	37.3	50 MT/Well/Annum Captive SLF
32		Verification and irregularities/ gap found in manifests		No irregularities observed.
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable		-
34		Whether industry is a member of TSDF site or not? Unit has its own captive TSDF facility at MPT		
35	A	Status of logbook for hazardous waste:		-
	B	Status of display board of size 4' x 6' at the main gate		Board displayed at site
	C	Status of display board at the storage area		Displayed
36		Electric service number		Captive Power Generation at MPT and supplied to Mangla Well Pads through Over Headline
37		Water service number		Water sourced from MPT through pipeline (Water sourced from authorized ground water source)
38		Other relevant information regarding the industry, including complaints		No particular complaints received against unit at RSPCB Balotra. Matter in Hon'ble NGT O.A. No. 54/2019 is presently pending.
39		Details of water/ waste water sample collected during inspection		-
40		Details of air /emission sample collected during inspection		-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied
42	Cess verification			
	A	Consumption of water in different categories for cess assessment		Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)
		Category- I		
		Category - II		
		Category - III		
		Category - III		
		Category-IV		
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)		-
	C	Details of the deposition of cess		-

43	Specific non- compliances if any, observed during inspection:	
Recommendation: In light of aforementioned facts, industry's application dated 02/03/2022 (application id: 303531, unit id 24118) for CTO Renewal may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.		
Jitendra (Jitendra Dabi) JEE		C/s (Rajkumar Sehra) Regional Officer

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report (First time detailed inspection or as and when detailed inspection is required)					
1	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Mangala Processing Terminal			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		MangalaProcessing Terminal	Nagana	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	9001894544			
	f. Telephone:	02982-660113			
2	Date of inspection:	06.10.2021			
3	Name and designation of the person contacted:	Sh. Jayesh Gehlot, Environment Manager			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Oil & Gas - Exploration & Production			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Submitted with the application			
10	Status of consent under the Water Act, 1974:	CTO F(HDF)/Barmer(Barmer)/7(1)/2016-2017/8442-8443 dated 24.11.2016 Validity till 31.03.2021 CTO Renewal cum expansion applied vide application no. 271425 with Unit ID 24118 dated 28.11.2020			
11	Status of consent under Air Act, 1981:	CTO (F(HDF)/Barmer(Barmer)/7(1)/2016-2017/8442-8443 dated 24.11.2016 Validity till 31.03.2021 CTO Renewal cum expansion applied vide application no. 271425 with Unit ID 24118 dated 28.11.2020			
12	Status of authorization under HWM Rules	HWA vide authorization no. **F(HSW)/Barmer(Barmer)/7(1)/2009-2010/2034-2036 Valid till 28/02/2022**			
13	Name of raw materials with quantity (per day or month or annum)	There are no raw materials involved in the production of crude oil and gas. Naturally occurring hydrocarbons will be pumped from the reservoir. The well fluid, comprises of crude oil, natural gas and produced water, this is separated (primarily physical separation) into individual components and utilized.			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Processing of the Hydrocarbon at Mangala Processing Terminal Crude Oil: 3,00,000 BOPD (as per existing CTO) Natural gas: 65 MMSCFD (as per existing CTO) As per CTO Renewal application: Product - Crude Oil: 4,00,000 BOPD			

			Product - Natural gas: 250 MMSCFD Services - Fluid Handling – 1600000 Barrels/day Service – Waste to energy facility – 10 Ton per day Service – Chemical Mixing Facility – 1000 Barrels/Day Service – Waste Oil Processing facility – 1000 Barrels/Day Service – Sulphate Removal Plant – 5,00,000 Barrels/Day Service – Effluent treatment Plant – 50,000 Barrels/Day
15		Water related:	
	1.	Source of Water	Water sourced from CGWA authorized Ground Water Source
	2	Status of metering arrangement on Sources	Installed
	3	Meter reading (if meter provided)	Meter readings records available. Digital meters are provided. and records displayed in control room. Water flow meter reading - 1. NR-1 pump P-104A outlet flow – 268 m3/hr 2.NR-1 pump P-104B outlet flow – 266 m3/hr 3. NR-1 pump P-104C outlet flow – 000 m3/hr 4. NR-1 pump P-104D outlet flow – 278 m3/hr 5. NR-1 pump P-104E outlet flow – 288 m3/hr 6. NR-1 pump P-104F outlet flow – 000 m3/hr
	4	Metering arrangement for water consumption in various process/ use	Meter readings records available
	5	Water consumption process/ purpose wise	Water Balance Enclosed
	6	Status of logbook of water drawl and consumption	Records Maintained
16		Wastewater generation (Stream wise) per day	Trade Effluent: 12135 KLD (as per existing CTO) Domestic Sewage: 45 KLD (as per existing CTO) Trade Effluent: 49335 KLD (as per CTO renewal cum exp application) Domestic Sewage: 105 KLD as per CTO renewal cum exp application)Boiler Blow Down: 800 KLD (as per CTO renewal cum exp application) Actual generation is being reported in monthly compliance report to RPCB
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Not Applicable
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all):		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	• Effluent treatment plants to remove physical impurities and treated water from ETP shall be used for reinjection back into the reservoir • STP is provided for treatment of domestic sewage and treated water is being used for irrigation

			purpose
	B	Operational status of ETP units at the time of inspection:	Operational
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	Separate energy meters are provided for ETP & STP. Reading on inspection date are as below ETP meter reading: 1532814 kWH STP meter reading: 8989 kWh & 24190.2 kWH
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes. then reading thereof.	Water flow meters are provided at ETP & STP ETP Flow meter reading: 582100 M^3 (Totalizer reading) STP Flow meter reading: 25042 KL
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	Logbook maintained
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
		Discharge of wastewater (per day)	STP outlet – 44 KLD – Irrigation ETP outlet – 1359 KLD – used for reinjection into hydrocarbon reservoir
20		Point of discharge/disposal of wastewater and ultimate receiving body adequacy of disposal:	disposal of RO reject water Deep Dump Well.
21		Recycle of treated effluent (if any)	Treated water is being used for reinjection into hydrocarbon reservoir
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	No
25		CETP inlet norms	NA
26		Method of conveyance of wastewater from industry to CETP:	NA
27		Adequacy of the CETP for total effluent reaching CETP	NA
28		Details of air pollution:	

A		**Process Stacks:**					
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	Boiler Stack Z-701 (115TPH)	30 mtrs	NOx, PM	Adequate stack height provided		Yes. All these boilers are gas fired.
	2	Boiler Stack Z-702 (115TPH)					
	3	Boiler Stack Z-703 (115TPH)					

	4	Boiler Stack Z-704 (115TPH)					
	5	Boiler Stack Z-707 (115TPH)					
	6	Boiler Stack Z-708 (115TPH)					
	7	Boiler Stack Z-709 (115TPH)					
	8	ASP Fluid Heater (4 nos.) – 2MW each	30 mtrs	PM, Sox, NOx		Yes	
	9	Heater (1 nos.) – up to 5 MW each	9 mtrs			Not required (steam drier)	
	10	ASP Fluid Heater (2 nos.) – 10 MW each	30 mtrs			Yes	
	i)	Status of energy meter & hour meter	-				
	ii)	Status of logbook of operation and meter	-				

B		**Flue gases stacks**						
	Sr No	**Stack attached to Plant**	**Fuel**	**Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)**	**Stack height in meter & its adequacy**	**Details of APCM**	**Comments on adequacy of APCM**	**Whether adequate and safe infrastructure re monitoring facility provided or not?**
	1	Flare stack (1No.)	Natural Gas		30 mtrs		NA	
	2	Plasma Gasification Reactor – 10 TPD	Solid Waste		30 mtrs		Machineries to be installed and outsourced with rental unit	
	3	Fire pump engines (5 no.) – 511 KW Each	HSD		6 mtrs		Provided	
	4	Incinerator (500 KG/Day)	HSD & Gas		30 mtrs	Venturi Scrubber, mist eliminator	Provided	
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					

C		Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**				
	S. No.	**Source**	**Probable details of pollutants**	**Probable pollutants**	**Details of APCM**	**Comments on adequacy of APCM**
	i)	Status of energy meter & hour meter	Not Applicable			

	ii)	Status of logbook of operation and meter	Not Applicable			
D		Details of incinerator: **Yes 1 Nos. (Capacity 500KG/Day)**				
	A	For Liquid For Hazardous Waste (Solid) If Combined	For Hazardous and Bio Medical Waste only			
	B	Status of operation at the time of Inspection:	Not in operation			
	C	Temperature °C	Primary Chamber	900 +/- 50 degrees Celsius		
			Secondary Chamber	1050 +/- Degrees Celsius		
	i)	Status of energy meter & hour meter	-			
	ii)	Status of logbook of operation and meter	Logbook maintained			
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	Emergency Diesel Generator (3 no.) – 2.2 MW	Provided	30 mtrs	Adequate	Yes
	2	1 No – 140 kVADG	Provided	Provided	Adequate	
	3	1 No – 200 kVA DG	Provided	Provided	Adequate	
	4	1 No – 750 kVA DG	Provided	Provided	Adequate	
	5	2 No's – 1000 kVA each DG	Provided	30 mtrs	Adequate	Yes
	6	2 No's – 1050 kVA each DG	Provided	30 mtrs	Adequate	Yes
	7	2 No's – 250 kVA each DG	Provided	Provided	Adequate	
	8	2 No's – 300 kVA each DG	Provided	Provided	Adequate	
	9	2 No's – 355 kVA each DG	Provided	Provided	Adequate	
	10	2 No's – 50 kVA each DG	Provided	Provided	Adequate	
	11	2 No's – 60 kVA each DG	Provided	Provided	Adequate	
	12	3 No's – 380 kVA each DG	Provided	Provided	Adequate	
	13	3 No's – 500 kVA each DG	Provided	Provided	Adequate	
	14	4 No's – 125 kVA each DG	Provided	Provided	Adequate	
	15	3 No's – 3 DGs (115TPH)	Provided	Provided	Adequate	
	16	3 No's – Gas Turbine Generators– 36 MW each	Provided	30 mtrs	Adequate	Yes
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	Details about Hazardous Waste Management:				

	Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
	1	Drill Cutting excluding those from water-based mud (Cat. 2.1)	185000 CUM	Captive SLF/Coprocessing
	2	Sludge Containing Oil (Cat. 2.2)	185000 CUM	

	3	Drilling mud containing oil (Cat. 2.3)	185000 CUM	
	4	Oil containing cargo residue, washing water, and sludge (Cat 3.1)	500 MT/Month	SLF/Coprocessing/ Incineration/ Registered recyclers
	5	Sludge & filters contaminated with oil (Cat. 3.3)	50 MT/Month	
	6	Empty barrels/containers/liners contaminated with hazardous chemicals/waste (Cat. 33.1)	15 MT/Month	SLF/Sale to authorized recyclers/reuse
	7	Contaminated cotton rags or other cleaning materials (Cat. 33.2)	12 MT/Month	Incinerator/Coprocessing
	8	Exhaust Air or Gas cleaning residue (Cat. 35.1)	50 MT/Month	SLF
	9	Spent ion exchange resin containing Toxic metals (Cat. 35.2)	60 MT/Month	Incinerator/Coprocessing
	10	Chemical sludge from wastewater treatment (Cat. 35.3)	700 MT/Month	SLF
	11	Oil and grease skimming (Cat. 35.4)	10 MT/Month	Coprocessing/ Incineration/ Registered recyclers
	12	Any process or distillation Residue (Cat. 36.1)	10 MT/Month	SLF/Coprocessing
	13	Spent carbon or filter medium (Cat. 36.2)	15 MT/Month	SLF/Coprocessing
	14	Sludge from wet scrubbers (Cat. 37.1)	10 MT/Month	SLF
	15	Ash from incinerator and flue gas cleaning residues (Cat. 37.2)	140 MT/Month	SLF
	16	Concentration or evaporationResidues (Cat. 37.3)	500 MT/Month	SLF
	17	Used or spent oil (Cat. 5.1)	95 KL/Month	Sale to registered recycler/Reprocess
	18	Waste or residue containing oil (Cat 5.2)	675 MT/Month	SLF/Coprocessing /Incineration/ Registered recyclers
		Form IV Copy enclosed		
32		Verification and irregularities/ gap found in manifests	**No irregularities observed.**	
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-	
34		Whether industry is a member of TSDF site or not?	**Cairn has its own captive TSDF facility at MPT Kawas, Barmer**	
35	A	Status of logbook for hazardous waste:	**Form 3 is being maintained**	

	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**
	C	Status of display board at the storage area	**All waste storage areas are well marked, and board displayed**
36		Electric service number	**Captive Power Generation at MPT**
37		Water service number	**Water sourced from authorized ground water source**
38		Other relevant information regarding the industry, including complaints	**Details of complaints and verification reports are enclosed.**
39		Details of water/ waste water sample collected during inspection	Water sample of STP, Boiler Blow down, Seepage water near adjoining boundary at MPT was taken by team of Central Laboratory, RSPCB, Jaipur on 29/06/2021 & 30/06/2021 respectively. Copies of analysis results are enclosed.
40		Details of air /emission sample collected during inspection	Ambient air quality monitoring was carried out by team of Central Laboratory RSPCB, Jaipur on 29/06/2021. Copy of same is enclosed.
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complying.**
42	Cess verification		
	A	Consumption of water in different categories for cess assessment	**Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)**
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Specific non- compliances if any, observed during inspection:	-

Other observations/facts:-

1. Complaint on Rajasthan Sampark Portal received from Sh. Jesaram regarding water seepage from MPT which has been sent to HO, RSPCB, Jaipur vide letter dated 28/10/2021 for further course of action from Head Office level. Sample of seepage water was collected by team of Central Laboratory, RSPCB, Jaipur on 29/06/2021. Copy of analysis results is enclosed.
2. Industry has made the submission in reference to the matter of seepage water from MPT vide letter dated 16/01/2020 and submitted that Cairn has engaged IIT Chennai to conduct the Geotechnical survey to assess the soil mechanics of MPT to find out the resolution, in this regard industry may be asked to submit the action taken/ resolution to redress the grievance.
3. Ambient air quality monitoring was carried out by team of Central Laboratory, RSPCB, Jaipur on 29/06/2021 and the analysis results depict exceeding result of the Particulate Matter (PM_{10}). Analysis result copies are enclosed.
4. Ambient Noise Level monitoring was carried out by team of Central Laboratory, RSPCB, Jaipur on 29/06/2021 and the

analysis results are within the prescribed limit. Copy of analysis results is enclosed.

5. Sample of STP outlet and Boiler blow down at MPT was collected by team of Central Laboratory, RSPCB, Jaipur on 29/06/2021 and the analysis results are within the prescribed limit. Copy of analysis results is enclosed.

Date:09/11/2021 Place: Balotra	Name: 1. Bhala Ram Siyag, AEE 2. Raj Kumar Meena, JSO 3. Samyak Sharma, JEE Regional Office, Balotra

Recommendations:- : In light of aforementioned facts, industry's application for expansion cum renewal of consent under Air and Water Acts may be considered for grant after getting concrete proposal from industry for redressal of grievances.

(**Rajkumar Sehra**)
Regional Officer

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 24)
Final Report

Report No. : **20689**
Report On : **15/07/2021**

I hereby certify that I **Sheeba**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **05/07/2021** from **Dr. Narain Bhoot, SO, Central Laboratory ,RSPCB Central Laboratory** a sample of **Water of M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - , , Tehsil- Barmer , District-Barmer** Collected from **Seepage water near adjoining boundary of MPT towards south west** Collected on **29/06/2021**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **15/07/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	8.45
2	Total Suspended Solids mg/l	26
3	Chemical Oxygen Demand (COD) mg/l	5.2
4	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	Not Traceable
5	Oil & Grease mg/l	Not Traceable
6	Copper as Cu mg/l	Not Traceable
7	Zinc as Zn mg/l	0.225
8	Nickel as Ni mg/l	Not Traceable
9	Lead as Pb mg/l	Not Traceable
10	Total Chromium as Cr mg/l	Not Traceable
11	Iron as Fe mg/l	0.211
12	Cadmium as Cd mg/l	Not Traceable
13	Chloride as Cl mg/l	544
14	Sulphate as SO_4 mg/l	130
15	Hardness (Total) as $CaCO_3$ mg/l	252
16	Hardness (Calcium) as $CaCO_3$ mg/l	44
17	Magnesium Hardness as $CaCO_3$ mg/l	208
18	Calcium (Titrimetric) as Ca mg/l	18
19	Magnesium as Mg mg/l	51
20	Fluoride as F mg/l	0.924
21	Total Dissolved Solids mg/l	1298
22	Total Alkalinity as $CaCO_3$ mg/l	164

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **15/07/2021**

BOARD ANALYST
Rajasthan State Pollution Control Board
Regional Office Jaipur
Opp. Road No 5, VKIA, Sikar Road, Jaipur
Phone: 0141-2332263

7/13/2021

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 10)

Final Report

Report No. : **7386**
Report On : **13/07/2021**

I hereby certify that I **Sheeba**, State Board Analyst duly appointed **under sub Section(2) of Section 29 of the Air (Prevention & Control of Pollution) Act, 1981** received on the **05/07/2021** from **Dr Manoj Kumar Meena, SO, Jaipur ,RSPCB Jaipur** a sample of **Ambient Air Quality of M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - , , Tehsil- Barmer , District- Barmer** Collected from **Ambient Air quality Monitoring at Mangala Processing Terminal at gate no. 1** Collected on **29/06/2021**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **13/07/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	Nitrogen Dioxide as NO2 µg/M3	34.6
2	Particulate Matter (PM10) µg/m3	121
3	Sulphur Dioxide as SO2 ug/m3	7.0

The condition of the seals, fastening and container on receipt was as follows : **Intact**
Signed This On **13/07/2021**

BOARD ANALYST
Rajasthan State Pollution Control Board
Regional Office Jaipur
Opp. Road No 5, VKIA, Sikar Road, Jaipur
Phone: 0141-2332263

7/13/2021

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 10)
Final Report

Report No. : **7387**
Report On : **13/07/2021**

I hereby certify that I **Sheeba**, State Board Analyst duly appointed **under sub Section(2) of Section 29 of the Air (Prevention & Control of Pollution) Act, 1981** received on the **05/07/2021** from **Dr Manoj Kumar Meena, SO, Jaipur ,RSPCB Jaipur** a sample of **Ambient Air Quality of M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - , , Tehsil- Barmer , District- Barmer** Collected from **Ambient Air quality Monitoring at Mangala Processing Terminal at gate no. 2** Collected on **29/06/2021**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **13/07/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	Nitrogen Dioxide as NO2 µg/M3	31.8
2	Particulate Matter (PM10) µg/m3	77
3	Sulphur Dioxide as SO2 ug/m3	6.5

The condition of the seals, fastening and container on receipt was as follows : **Intact**
Signed This On **13/07/2021**

BOARD ANALYST
Rajasthan State Pollution Control Board
Regional Office Jaipur
Opp. Road No 5, VKIA, Sikar Road, Jaipur
Phone: 0141-2332263

Summary Report

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri, Jaipur (Raj.) - 302 004
Result of Ambient Noise Level Monitoring

DATE OF RECEIPT : 05/07/2021
MONITORED BY : Dr Manoj Kumar Meena, SO, Jaipur

S.No.	Lab Sample No	Name of Industry / Place	Point of Collection / Location	Date of Monitoring	Noise Level In Day Time(Leq dB(A))	Noise Level In Night Time(Leq dB(A))
1	7364	Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)), Tehsil:Barmer District:Barmer	Ambient Noise Level Monitoring at Mangala Processing Terminal at gate no. 2	29/06/2021	52.4	ND

BOARD ANALYST
Rajasthan State Pollution Control Board

ND = Not Done

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri, Jaipur (Raj.) - 302 004
Result of Ambient Noise Level Monitoring

DATE OF RECEIPT : 06/07/2021
MONITORED BY : Dr Manoj Kumar Meena, SO, Jaipur

S.No.	Lab Sample No	Name of Industry / Place	Point of Collection / Location	Date of Monitoring	Noise Level In Day Time(Leq dB(A))	Noise Level In Night Time(Leq dB(A))
1	7363	Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)), Tehsil:Barmer District:Barmer	Ambient Noise Level Monitoring at Mangala Processing Terminal gate no. 1	29/06/2021	60.2	ND

BOARD ANALYST
Rajasthan State Pollution Control Board

ND = Not Done

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FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 24)

Final Report

Report No. : **20663**
Report On : **15/07/2021**

I hereby certify that I **Sheeba**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **05/07/2021** from **Dr. Narain Bhoot, SO, Central Laboratory ,RSPCB Central Laboratory** a sample of **Waste Water** of **M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - , , Tehsil- Barmer , District- Barmer** Collected from **STP outlet at Mangala proccessing terminal (45 KLD)** Collected on **29/06/2021**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **15/07/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	7.54
2	Total Suspended Solids mg/l	23
3	Chemical Oxygen Demand (COD) mg/l	20
4	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	7.4
5	Oil & Grease mg/l	1

The condition of the seals, fastening and container on receipt was as follows : **Intact**
Signed This On **15/07/2021**

BOARD ANALYST
Rajasthan State Pollution Control Board
Regional Office Jaipur
Opp. Road No 5, VKIA, Sikar Road,
Jaipur
Phone: 0141-2332263

(85)

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST
(See Rule - 24)
Final Report

Report No. : **20665**
Report On : **15/07/2021**

I hereby certify that I **Sheeba**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **05/07/2021** from **Dr Manoj Kumar Meena, SO, Jaipur ,RSPCB Jaipur** a sample of **Waste Water** of **M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - , , Tehsil- Barmer , District- Barmer** Collected from **Boiler blow down at MPT** Collected on **30/06/2021**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **15/07/2021** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	8.20
2	Total Suspended Solids mg/l	2
3	Chemical Oxygen Demand (COD) mg/l	26
4	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	8.3
5	Oil & Grease mg/l	1

The condition of the seals, fastening and container on receipt was as follows : **Intact**
Signed This On **15/07/2021**

BOARD ANALYST
Rajasthan State Pollution Control Board
Regional Office Jaipur
Opp. Road No 5, VKIA, Sikar Road, Jaipur
Phone: 0141-2332263

Regional Office, Balotra
Rajasthan State Pollution Control Board
Jasol Phanta, Opp. Jdvvnl Office, Balotra, Barmer

RPCB/RO/Balotra/CTO-9/ 3134 Date: 10/12/2024

GIC (O&G),
Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri,
Jaipur.

Sub.: - Inspection report of CTE & CTO for Pilot Project for Bioremediation of Oily Sludge at Mangla Processing Terminal located at Village-Nagana, The. & Dist.- Barmer.
Ref.: - Show-cause notice issued vide Head Office letter dated 25.11.2024.

Sir,

With reference to above please find enclosed inspection report of M/s **Vedanta Limited (Cairn Oil & Gas)** Pilot Project for Bioremediation of Oily Sludge at Mangla Processing Terminal, **Village-Nagana, Tehsil-Barmer**, District-Barmer for necessary action please.

Encl.: - As above

Yours Sincerely,

(Rajkumar Sehra)
SEE & Regional Officer

Inspection Report

(Under Section 23 of the Water Act 1974, Under Section 24 of the Air Act 1981 and Under Section 10 of EP Act 1986)

1	a. Name of the Industry:	**Vedanta Limited, Cairn Oil and Gas (Old Name Cairn India Limited)**			
	b. Address of the Industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		Mangala Processing Terminal (MPT)	**Nagana**	**Barmer**	**Barmer**
	c. E-mail:	**ankit.sharma@cairnindia.com**			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**04.12.2024**			
3	Name and designation of the person contacted:	**Mr. Ankit Sharma, Environment Manager**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Oil & Gas – Exploration & Production**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	**Enclosed**			
10	Status of consent under the Water Act, 1974:	**CTE** applied with **Unit Id 24118** & application number **382831** submitted on 28.09.2024. **CTO** applied with **Unit Id 24118** & application number **383209**			

(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल,बालोतरा
जसोल फांटा, जसोल रोड, जिला बालोतरा
वेबसाइट: www.environment.rajasthan.gov.in
ई-मेल: ro.balotara@gmail.com

			submitted on 11.10.2024.
11	Status of consent under Air Act, 1981:		**CTE** applied with **Unit Id 24118** & application number **382831** submitted on 28.09.2024. **CTO** applied with **Unit Id 24118** & application number **383209** submitted on 11.10.2024.
12	Status of authorization under HWM Rules		Authorization Number - **RPCB/HWM/2021-2022/HDF/HSW/100** valid till dated: **28/02/2027**.
13	Name of raw materials with quantity (per day or month or annum)		**Oil Contaminated Sludge** – 12000 MT/ year
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)		**Bioremediated Sludge/Soil** - 12000 MT/ year
15	Water related:		
	1	Water sourced from CGWA authorized Ground Water Source	Not Applicable
	2	Digital meters – records are maintained in form of digital data	Not Applicable
	3	Meter reading (if meter provided)	Not Applicable
	4	Metering arrangement for water consumption in various process/ use	Not Applicable
	5	Water consumption process/ purpose wise	Not Applicable
	6	Logbook maintained	Not Applicable
16	Wastewater generation (Stream wise) per day		Not Applicable
17	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?		Not Applicable
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): **Not Applicable**		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-

	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-

	Discharge of wastewater (per day)	-
20	Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:	-
21	Recycle of treated effluent (if any)	-
22	Details of recycling arrangements	-
23	Metering arrangements for recycling? If yes, then meter reading	-
24	Whether industry is a member of CETP? Provide details.	-
25	CETP inlet norms	-
26	Method of conveyance of wastewater from industry to CETP:	-
27	Adequacy of the CETP for total effluent reaching CETP	-
28	Details of air pollution:	

A		**Process Stacks: Not Applicable**					
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	Not Applicable					
	i)	Status of energy meter & hour meter	-				
	ii)	Status of logbook of	-				

		operation and meter						
B		**Flue gases stacks: Not Applicable**						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	1	Not Applicable		-				
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: **NA**						
	S. No.	Source	Probable details of pollutants		Probable pollutants	Details of APCM	Comments on adequacy of APCM	
	Not Applicable							
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: **Not Applicable**						
	A	For Liquid For Hazardous Waste (Solid) If Combined						
	B	Status of operation at the time of Inspection:						
	C	Temperature °C	Primary Chamber					
			Secondary Chamber					

	including complaints		
39	Details of water/ wastewater sample collected during inspection	-	
40	Details of air /emission sample collected during inspection	-	
41	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**	
42	Cess verification	**Not Applicable**	
43	Specific non- compliances if any, observed during inspection:	During inspection of the unit, only site preparation related work for the project was going on, and as reported by unit representative the Bioremediation plant will be ready to operate in next two months.	

Recommendations: -Since the Bioremediation method in oil exploration/processing field is noteworthy phenomenon for treatment of exposed soil with crude leakage. Therefore, consents for this Pilot Project may be considered for grant.

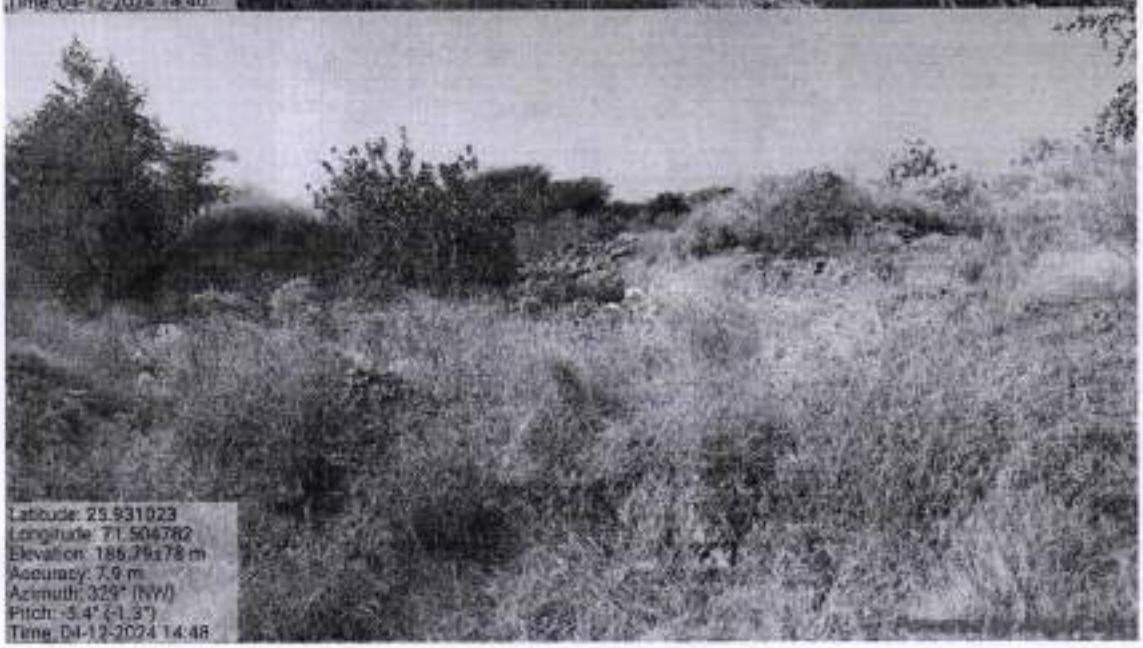
Himmat Singh Shekhawat
JEE

Rajkumar Sehra
Regional Officer, Balotra

(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल,बालोतरा
जसोल फांटा, जसोल रोड, जिला बालोतरा
वेबसाइट: www.environment.rajasthan.gov.in
ई-मेल: ro.balotara@gmail.com

	i)	Status of energy meter & hour meter					
	ii)	Status of logbook of operation and meter					
E		Details of D. G. Sets: **Not Applicable**					
	Sr. No.	Rating	Status of Acoustic enclosure	Details of Stack (mtrs)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?	
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**					
30	Fly ash management with all details, if applicable: **Not Applicable.**						
31	A	Details about Hazardous Waste Management: Details as per HWA application submitted are provided below. **Not Applicable**					
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**			
	1						
32	Verification and irregularities/ gap found in manifests			**No irregularities observed.**			
33	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable			-			
34	Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**						
35	A	Status of logbook for hazardous waste:		**NA**			
	B	Status of display board of size 4' x 6' at the main gate		**Board displayed at site**			
	C	Status of display board at the storage area		**All waste storage areas are well marked**			
36	Electric service number			**Captive Power from MPT**			
37	Water service number			**Water sourced from MPT.** **(Water sourced from authorized ground water source Thumbli)**			
38	Other relevant information regarding the industry,			-			

Photographic evidence:



(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल, बालोतरा
जसोल फांटा, जसोल रोड, जिला बालोतरा
वेबसाइट: www.environment.rajasthan.gov.in
ई-मेल: ro.balotara@gmail.com

Regional Office, Balotra
Rajasthan State Pollution Control Board
Jasol Phanta ,Nakoda Road ,Dist-Balotra
E Mail : ro.balotara@gmail.com

RPCB/RO/Balotra/BI-2644/ 860

Date: 05/08/2025

GIC (Oil & Gas)
R.S.P.C.B, Jaipur

Sub :- Regarding inspection report of **Bioremediation of Oily Sludge Site of M/s Vedanta Ltd., Cairn Oil and Gas, Barmer.**

Ref:- 1. H.O. letter dated 04.07.2025
2. Inspection of the unit carried out on dated 24.07.2025

Sir,

With reference to above, please find enclosed herewith inspection report of "**Bioremediation of Oily Sludge Site of M/s Vedanta Ltd., Cairn Oil and Gas, Village – Nagana, Tehsil – Baytu & District – Barmer**" for your kind perusal & further necessary action at H.O. level.

Yours Sincerely

(Deepak Tanwar)
SEE & Regional Officer

Signature valid
Digitally signed by Deepak Tanwar
Designation: Senior Environmental Engineer
Date: 2025.08.04 18:44:07 IST
Reason: Approved

RajKaj Ref No.: 16971015
eSign 1.0

BR - 2644

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report					
1	a. Name of the Industry:	Vedanta (Cairn Oil and Gas) Limited			
	b. Address of the Industry:	Address for	Village	Tehsil	District
		Mangla Processing Terminal (Bioremediation Site)	Nagana	Barmer	Barmer
	c. E-mail:	**RJON.EnvironmentManagerMPT@cairnindia.com**			
	d. Fax:	02982 – 225463			
	e. Mobile:	9773380157			
	f. Telephone:	02982-660113			
2	Date of inspection:	24.07.2025			
3	Name and designation of the person contacted:	Sh. Gaurav Yadav, Environment Manager.			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Production of Hydrocarbons			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Non – operational during inspection			
9	List of partners/ directors/ proprietor with addresses:	---------			
10	Status of consent under the Water Act, 1974:	**CTE** applied with **Unit ID – 24118** & application number 382831 dated **28.09.2024.** **CTO** applied with **Unit ID – 24118** & application number 383209 dated **11.10.2024.**			
11	Status of consent under Air Act, 1981:	Same as above			
12	Status of authorization under HWM Rules	Authorization No. RPCB/HWM/2021-2022/HDF/HSW/100 valid till dated: 28/02/2027			
13	Name of raw materials with quantity (per day or month or annum)	**Oil contaminated Sludge – 12000 MT/Year**			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**Bioremediated Sludge/Oil – 12000 MT/Year**			
15	Water related:				
1	Water sourced from CGWA authorized Ground Water Source	Not Applicable			
2	Digital meters – records are maintained in form of digital data	Not Applicable			
3	Meter readings records available.	Not Applicable			
4	Metering arrangement for water consumption in various process/ use	Not Applicable			
5	Domestic and intermittently for other operational activities	Not Applicable			

6	Logbook maintained		Not Applicable
16	Wastewater generation (Stream wise) per day		Not Applicable
17	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?		Not Applicable
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): Centralized ETP		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19	Discharge of wastewater (per day)		-
20	Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:		-
21	Recycle of treated effluent (if any)		-
22	Details of recycling arrangements		-
23	Metering arrangements for recycling? If yes, then meter reading		-
24	Whether industry is a member of CETP? Provide details.		-
25	CETP inlet norms		-
26	Method of conveyance of wastewater from industry to CETP:		-
27	Adequacy of the CETP for total effluent reaching CETP		-
28	Details of air pollution:		

A	**Process Stacks:**						
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	-	-	-	-	-	-
	i)	Status of energy meter & hour meter	-				
	ii)	Status of logbook of operation and meter	-				
B	**Flue gases stacks**						

	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	I	Not Applicable	-	-	-	-	-	
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C	Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.							
	S. No.	Source	Probable details of pollutants		Probable pollutants	Details of APCM	Comments on adequacy of APCM	
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: Not Applicable						
	A	For Liquid For Hazardous Waste(solid) If Combined						
	B	Status of operation at the time of Inspection:						
	C	Temperature °C	Primary Chamber					
			Secondary Chamber					
	i)	Status of energy meter & hour meter						
	ii)	Status of logbook of operation and meter						
E	Details of D. G. Sets – **Not Applicable**							
	Sr. No.	Rating	Status of Acoustic enclosure	Details of Stack (mtrs)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?		
F	Source of foul odor and measures taken to control, if any: **This facility is not generating any foul odor.**							
30	Fly ash management with all details, if applicable: **Not Applicable.**							
31	A	Details about Hazardous Waste Management: Details as per HWA application submitted are provided below. **Not Applicable**						
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**				
	1.							
32	Verification and irregularities/ gap found in manifests		No irregularities observed					

33	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable		-
34	Whether industry is a member of TSDF site or not?		**Cairn has its own captive TSDF facility at MPT**
35	A	Status of logbook for hazardous waste:	NA
	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**
	C	Status of display board at the storage area	**All waste storage areas are well marked**
36	Electric service number		**Captive Power from MPT**
37	Water service number		**Water sourced from MPT (From authorized ground water source Thumbli)**
38	Other relevant information regarding the industry, including complaints		-
39	Details of water/ wastewater sample collected during inspection		-
40	Details of air /emission sample collected during inspection		-
41	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied
42	Cess verification		**Not Applicable**
43	Specific non- compliances if any, observed during inspection:		During inspection of the unit, only vacant plot was found. No significant progress as on date of inspection.

Observations:

1. During inspection of Bioremediation plant site, only vacant plot was found. No significant progress as on date of inspection.

Mahendra Dewasi
JEE

C/s

Deepak Tanwar,
Regional Officer, Balotra

Photographic evidences:

Regional Office, Balotra
Rajasthan State Pollution Control Board
Jasol Phanta ,Nakoda Road ,Balotra ,Dist-Barmer

RPCB/RO/Balotra/BI-453/ 3019

Date: 05/03/2024

Environment Engineer (O & G)
Rajasthan State Pollution Control Board
Jaipur .

Sub:- Regarding Inspection report of M/s Vedanta Limited, Cairn Oil and Gas located at Village- Nagana, Tehsil- Baytu, District-Barmer.

Ref : HO email dated 26/02/2024

Sir,

With reference to above, please find enclosed Inspection report of M/s Vedanta Limited, Cairn Oil and Gas located at Village- Nagana, Tehsil- Baytu, District-Barmer for information and further necessary action.

Yours Sincerely,

(Rajkumar Sehra)
SEE, RPCB, Balotra

Enclosed as above

Inspection Report

(Under Section 23 of the Water Act 1974, Under Section 24 of the Air Act 1981 and Under Section 10 of EP Act 1986)

1	a. Name of the Industry:	**Vedanta Limited, Cairn Oil and Gas (Old Name Cairn India Limited)**			
	b. Address of the Industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		Operation Base plant	**Nagana**	**Baytu**	**Barmer**
	c. E-mail:	**ankit.sharma@cairnindia.com**			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**01.03.2024**			
3	Name and designation of the person contacted:	**Mr. Ankit Sharma, Environment Manager**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Air and Water polluting**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non- operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	**As submitted with application.**			
10	Status of consent under the Water Act, 1974:	CTO issued vide letter no. **F(HDF)/Barmer(Barmer)/16(1)/2018-2019/5843-5846**, Order No: **2019-2020/HDF/2975**, dated **11/03/2020** under Air and Water Acts. **CTO Valid till 29/02/2024.** **CTO renewal** applied with **Unit Id 24118** & application number **352924** submitted on 06/10/2023.			
11	Status of consent under Air Act, 1981:	CTO issued vide letter no. **F(HDF)/Barmer(Barmer)/16(1)/2018-2019/5843-5846**, Order No: **2019-2020/HDF/2975**, dated **11/03/2020** under Air and Water Acts. **CTO Valid till 29/02/2024.** **CTO renewal** applied with **Unit Id 24118** & application number **352924** submitted on 06/10/2023.			
12	Status of authorization under HWM Rules	Authorization Number - **RPCB/HWM/2021-2022/HDF/HSW/88** valid till dated: **30/06/2026.**			

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राजस्थान राज्य प्रदूषण नियंत्रण मंडल, बालोतरा
जसोल फांटा, जसोल रोड, जिला बालोतरा
वेबसाइट: www.environment.rajasthan.gov.in
ई-मेल: ro.balotara@gmail.com

13		Name of raw materials with quantity (per day or month or annum)	N/A
14		Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**OPERATIONAL BASE- 650.00 PERSONS ACCOMODATION**
15		Water related:	
	1.	Water sourced from CGWA authorized Ground Water Source	Water sourced from CGWA authorized Ground Water Source
	2	Digital meters – records are maintained in form of digital data	Maintained
	3	Meter reading (if meter provided)	-
	4	Metering arrangement for water consumption in various process/ use	-
	5	Water consumption process/ purpose wise	Domestic activities
	6	Logbook maintained	Logbook maintained
16		Wastewater generation (Stream wise) per day	Domestic wastewater is treated through onsite **STP 250 KLD**

Quantity of Effluent Generated (KLD)	**Recycled/ reuse (KLD)**	**Disposed/ Discharged (KLD)**	**Mode of Reuse**
200	180	0	Greenbelt area development.

17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-
18		In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): **N.A.**	
	A	Sewage Treatment Plant (STP) unit operation/ processes with details and status (Enclose flow sheet):	Flow sheet enclosed with application, as per representative.
	B	Operational status of STP units at the time of inspection:	Operational.
	C	Whether separate electric meter for Sewage Treatment Plant is provided or Not? If, yes then the meter reading	Provided
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	Yes
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	Yes
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body. adequacy of disposal:	Adequate
21		Recycle of treated effluent (if any)	Green belt

Recycle of treated effluent (if any)	Green belt
Details of recycling arrangements	-
Metering arrangements for recycling? If yes, then meter reading	-
Whether industry is a member of CETP? Provide details.	-
CETP inlet norms	-
Method of conveyance of wastewater from industry to CETP:	-
Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

Process Stacks:

Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
Kitchen Chimney(3 NOS.)	**5 mtrs**	**NA**			
Status of energy meter & hour meter	-				
Status of logbook of operation and meter	-				

Flue gases stacks

Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
		-				
Status of energy meter & hour meter	Not Applicable.					
Status of logbook of operation and meter	Not Applicable.					

Source of fugitive emission and measures taken to control, if any with details & adequacy: **NA**

Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM

Status of energy meter & hour meter	Not Applicable
Status of logbook of operation and meter	Not Applicable

Details of incinerator: **Not Applicable**				
For Liquid For Hazardous Waste (Solid) If Combined				
Status of operation at the time of Inspection:				
Temperature °C	Primary Chamber			
	Secondary Chamber			
Status of energy meter & hour meter				
Status of logbook of operation and meter				
Details of D. G. Sets -				
Rating	Status of Acoustic enclosure	Details of Stack (mtrs)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
2 X 1010 KVA	Provided	30	Adequate	These DG sets are used only in case of emergency during power outage.
Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
Fly ash management with all details, if applicable: **Not Applicable.**				
Details about Hazardous Waste Management: Details as per HWA application submitted are provided below.				

Source of Hazardous Waste	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**
Used or spent oil	5.1	5 KL/ANNUM Reuse in process/sales to registered recyclers

Verification and irregularities/ gap found in manifests	**No irregularities observed.**
Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-

nether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**

Status of logbook for hazardous waste:	**Form 3 is being maintained**
Status of display board of size 4' x 6' at the main gate	**Board displayed at site**
Status of display board at the storage area	**Provided**
Electric service number	**Captive Power from MPT**
Water service number	**Water sourced from MPT. (Water sourced from authorized ground water source Thumbli)**

39		Details of water/ wastewater sample collected during inspection	Sample collected and submitted to laboratory for analysis.
40		Details of air /emission sample collected during inspection	-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**
42	Cess verification		
	A	Consumption of water in different categories for cess assessment	**Water consumption is being reported in the monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e., effective from 1st July'17).**
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Specific non- compliances if any, observed during inspection:	No chlorination dosing arrangement was there. Proponent was advised to provide the same for disinfection.

Recommendations: - In light of aforementioned facts, Industry's application dated 06.10.2023 (Application id: 352924 - Unit id 24118) for CTO-Renewal may be considered for grant subject to the installation of Chlorination arrangement within a period of one month or fulfillment of other statutory requirements with condition as deemed appropriate.

Jitendra Dabi
JEE

Himmat Singh Shekhawat
JEE

C/s
Rajkumar Sehra
Regional Officer, Balotra

(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल,बालोतरा
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ई-मेल: ro.balotara@gmail.com

Photographic evidence:

(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल,बालोतरा
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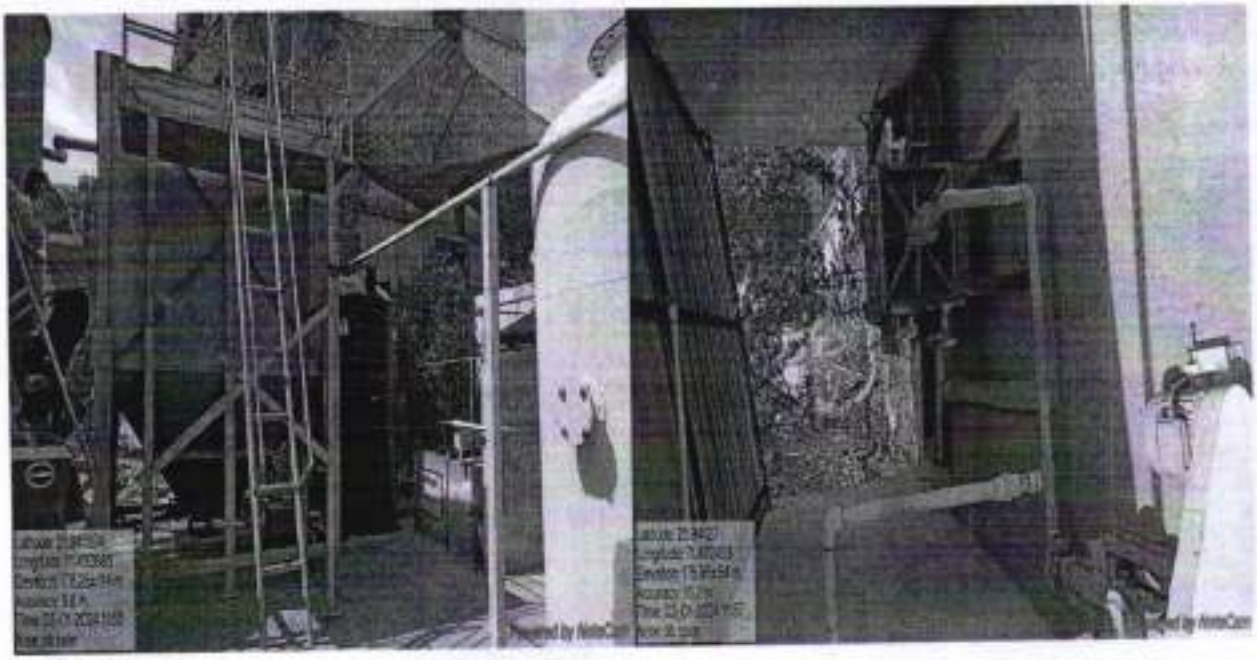

(क्षेत्रीय कार्यालय)
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Regional Office, Balotra
Rajasthan State Pollution Control Board
Jasol Phanta, Opp. Jdvvnl Office, Balotra, Barmer

RPCB/RO/Balotra/BI-453/ 1249

Date: 22/07/2024

GIC (O&G),
Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri,
Jaipur.

Sub.:- Inspection report and Analysis report for CTO (Expansion) of Operation Base of M/s Vedanta Limited (Cairn Oil & Gas).

Ref.:- Show-cause notice issued vide Head Office letter dated 19.06.2024.

Sir,

With reference to above please find enclosed inspection report along-with analysis report of M/s **Vedanta Limited (Cairn Oil & Gas)** located at **Village-Nagana, Tehsil-Barmer**, District-Barmer for necessary action please.

Encl.: - As above

Yours Sincerely,

(Rajkumar Schra)
SEE & Regional Officer

Inspection Report

(Under Section 23 of the Water Act 1974, Under Section 24 of the Air Act 1981 and Under Section 10 of EP Act 1986)

1	a. Name of the Industry:	**Vedanta Limited, Cairn Oil and Gas (Old Name Cairn India Limited)**			
	b. Address of the Industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		Operation Base (Township)	**Nagana**	**Barmer**	**Barmer**
	c. E-mail:	**ankit.sharma@cairnindia.com**			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**12.07.2024**			
3	Name and designation of the person contacted:	**Mr. Ankit Sharma, Environment Manager**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Oil & Gas - Exploration & Production**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	**As submitted with the application.**			
10	Status of consent under the Water Act, 1974:	CTO issued vide letter no. **F(Tech)/Barmer(Barmer)/5148(1)/2023-2024/7646-7648**, Order No: **2023-2024/Oil and Gas/8938**, dated **22/03/2024** under Air and Water Acts. **CTO Valid till 28/02/2029.** **CTE-Expansion** issued vide letter dated 07.09.2022. **CTO Expansion** applied with **Unit Id 24118** & application number **373143** submitted on 26/05/2024.			
11	Status of consent under Air Act, 1981:	CTO issued vide letter no. **F(Tech)/Barmer(Barmer)/5148(1)/2023-2024/7646-7648**, Order No: **2023-2024/Oil and Gas/8938**, dated **22/03/2024** under Air and Water Acts. **CTO Valid till 28/02/2029.** **CTE-Expansion** issued vide letter dated 07.09.2022. **CTO Expansion** applied with **Unit Id 24118** & application number **373143** submitted on 26/05/2024.			
12	Status of authorization under HWM Rules	Authorization Number - **RPCB/HWM/2021-2022/HDF/HSW/88** valid till dated: **30/06/2026**.			
13	Name of raw materials with quantity (per day or month or annum)	Residential complex			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**OPERATIONAL BASE- 2000 PERSONS ACCOMODATION, 66000 SQM** **Plot Area- 6.50 Hectare**			

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ई-मेल: ro.balotara@gmail.com

<table>
<tr><td colspan="2">15</td><td>Water related:</td><td></td></tr>
<tr><td></td><td>1.</td><td>Water sourced from CGWA authorized Ground Water Source</td><td>Water will be sourced from CGWA authorized Ground Water Source</td></tr>
<tr><td></td><td>2</td><td>Digital meters – records are maintained in form of digital data</td><td>Digital meters – records will be maintained in form of digital data</td></tr>
<tr><td></td><td>3</td><td>Meter reading (if meter provided)</td><td>-</td></tr>
<tr><td></td><td>4</td><td>Metering arrangement for water consumption in various process/ use</td><td>-</td></tr>
<tr><td></td><td>5</td><td>Water consumption process/ purpose wise</td><td>Domestic activities</td></tr>
<tr><td></td><td>6</td><td>Logbook maintained</td><td>Logbook maintained of existing STP.</td></tr>
<tr><td colspan="2">16</td><td>Wastewater generation (Stream wise) per day</td><td>Domestic wastewater will be treated through onsite STP of capacity 300 KLD (as per unit representative). however during inspection the STP was found under erection and thus capacity of STP cannot be adjudged. However, unit was treating the waste water so generated through existing STP which was accorded vide consent letter dated 22.03.2024.
<table>
<tr><th>Quantity of Effluent Generated (KLD)</th><th>Recycled/ reuse (KLD)</th><th>Disposed/ Discharged (KLD)</th><th>Mode of Reuse</th></tr>
<tr><td>240</td><td>240</td><td>0</td><td>Irrigation/ Greenbelt area development/ Flushing</td></tr>
</table></td></tr>
<tr><td colspan="2">17</td><td>Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?</td><td>-</td></tr>
<tr><td>18</td><td colspan="3">In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): N.A.</td></tr>
<tr><td></td><td>A</td><td>Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):</td><td>-</td></tr>
<tr><td></td><td>B</td><td>Operational status of ETP units at the time of inspection:</td><td>-</td></tr>
<tr><td></td><td>C</td><td>Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading</td><td>-</td></tr>
<tr><td></td><td>D</td><td>Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.</td><td>-</td></tr>
<tr><td></td><td>E</td><td>Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?</td><td>-</td></tr>
<tr><td></td><td>F</td><td>Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen</td><td>-</td></tr>
<tr><td></td><td></td><td>Discharge of wastewater (per day)</td><td>-</td></tr>
<tr><td>20</td><td></td><td>Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:</td><td></td></tr>
<tr><td>21</td><td></td><td>Recycle of treated effluent (if any)</td><td>-</td></tr>
<tr><td>22</td><td></td><td>Details of recycling arrangements</td><td>-</td></tr>
</table>

23		Metering arrangements for recycling? If yes, then meter reading				-	
24		Whether industry is a member of CETP? Provide details.				-	
25		CETP inlet norms				-	
26		Method of conveyance of wastewater from industry to CETP:				-	
27		Adequacy of the CETP for total effluent reaching CETP				-	
28		Details of air pollution:					
A		**Process Stacks:**					
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	Not Applicable					
	i)	Status of energy meter & hour meter	-				
	ii)	Status of logbook of operation and meter	-				
B		**Flue gases stacks**					
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	1	Not Applicable		-			
	i)	Status of energy meter & hour meter	Not Applicable.				
	ii)	Status of logbook of operation and meter	Not Applicable.				
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: **NA**					
	S. No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM	
	Not Applicable						
	i)	Status of energy meter & hour meter	Not Applicable				
	ii)	Status of logbook of operation and meter	Not Applicable				
D		Details of incinerator: **Not Applicable**					
	A	For Liquid For Hazardous Waste (Solid) If Combined					

(क्षेत्रीय कार्यालय)
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ई-मेल: ro.balotara@gmail.com

	B	Status of operation at the time of Inspection:				
	C	Temperature °C		Primary Chamber		
				Secondary Chamber		
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets – **1 DG installed** and **two DGs of capacity 1010 kVA** were found operational which were accorded vide consent letter **dated 22.03.2024.**				
	Sr. No.	Rating	Status of Acoustic enclosure	Details of Stack (mtrs)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	**1 x 1010 kVA** -	Provided	-	Inadequate and was found without stack.	DG set is used only in case of emergency during power outage.
	2	**2 x 1010 kVA**	Provided	30	Adequate	These DG sets are used only in case of emergency during power outrage.
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	Details about Hazardous Waste Management: Details as per HWA application submitted are provided below.				
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
	1	Used or spent oil	5.1	5 KL/ANNUM Reuse in process/sales to registered recyclers		
32		Verification and irregularities/ gap found in manifests	**No irregularities observed.**			
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-			
34		Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**				
35	A	Status of logbook for hazardous waste:	**NA**			
	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**			
	C	Status of display board at the storage area	**All waste storage areas are well marked**			
36		Electric service number	**Captive Power from MPT**			
37		Water service number	**Water sourced from MPT. (Water sourced from authorized ground water source Thumbli)**			
38		Other relevant information regarding the industry, including complaints				
39		Details of water/ wastewater sample collected during inspection	Samples from the inlet and outlet of the existing STP were collected and analysis reports are enclosed.			
40		Details of air /emission sample collected during inspection	-			
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**			

42	Cess verification		
	A	Consumption of water in different categories for cess assessment	
		Category- I	
		Category – II	
		Category – III	
		Category – III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Specific non- compliances if any, observed during inspection:	Unit has already applied CTO-Expansion for Operation Base (Township), however during inspection of the aforementioned residential complex, it was found under construction and as per representative they are planning to operate the facility in phases. Unit has total of 12 towers, and out of these 3 are about to complete by the end of this month and will be accommodated by august (as per representative).

Recommendations: - In light of aforementioned facts, a show cause notice for intended refusal of consent to operate may be issued.

Jitendra Dabi
JEE

Himmat Singh Shekhawat
JEE

Rajkumar Sehra
Regional Officer, Balotra

(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल,बालोतरा
जसोल फांटा, जसोल रोड, जिला बालोतरा
वेबसाइट: www.environment.rajasthan.gov.in
ई-मेल: ro.balotara@gmail.com

Photographic evidence:

(क्षेत्रीय कार्यालय)
राजस्थान राज्य प्रदूषण नियंत्रण मंडल, बालोतरा
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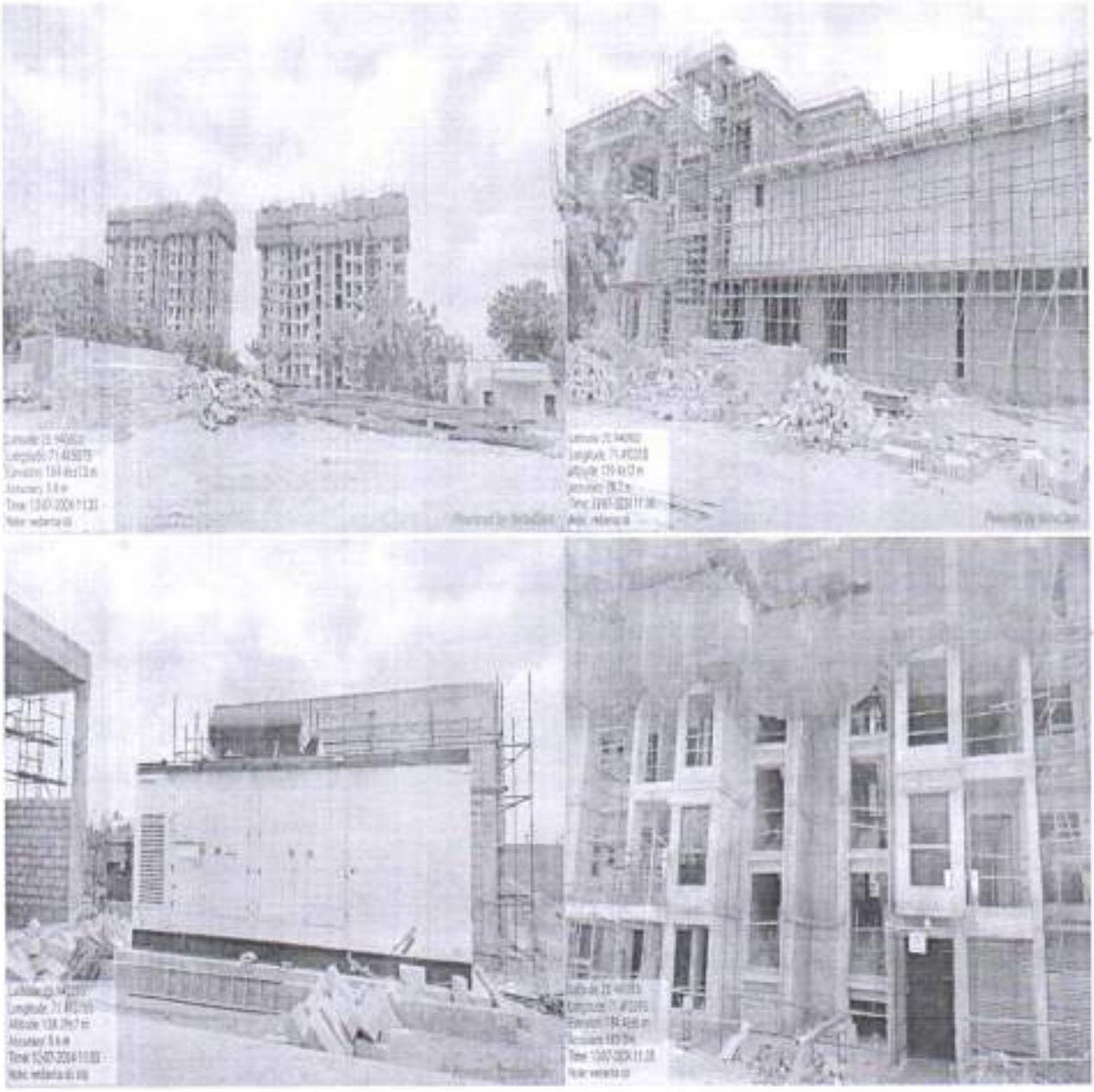

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FORM - X

RAJASTHAN STATE POLLUTION CONTROL BOARD

REPORT OF THE STATE BOARD ANALYST

(See Rule - 24)

Report No. : **1146**

Report On : **22/07/2024**

I hereby certify that I **Dr. Narain Bhoot**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **15/07/2024** from **JITENDRA DABI, JEE, Balotra ,RSPCB Balotra** a sample of **Waste Water** of **M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - Operation Base [24118] ,Village , Tehsil- Barmer , District- Barmer** Collected from **Inlet Of STP** Collected on **12/07/2024**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **22/07/2024** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	6.63
2	Total Suspended Solids mg/l	328
3	Chemical Oxygen Demand (COD) mg/l	590
4	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	190
5	Oil & Grease mg/l	7

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **22/07/2024**

Dr. Narain Bhoot

BOARD ANALYST

Rajasthan State Pollution Control Board

Regional Office Balotra

Regional office,Rajasthan state pollution control Board,Jasol phanta,OppJDVVNL office,Jasol Road Balotra,District -Balotra

Phone: 9667576064

Fax: 9667576064

Signature Not Verified

Digitally signed by Narain Bhoot
Date: 2024.07.22 13:28:28 IST
Reason: SelfAttested
Location:

FORM - X

RAJASTHAN STATE POLLUTION CONTROL BOARD

REPORT OF THE STATE BOARD ANALYST

(See Rule - 24)

Report No. : **1147**

Report On : **22/07/2024**

I hereby certify that I **Dr. Narain Bhoot**, State Board Analyst duly appointed **under sub Section(3) of Section 53 of the Water (Prevention & Control of Pollution) Act, 1974** received on the **15/07/2024** from **JITENDRA DABI, JEE, Balotra ,RSPCB Balotra** a sample of **Waste Water** of **M/S Vedanta Limited, Cairn Oil and Gas(Old Name Cairn India Limited (Aishwariya Field)) , Plant - Operation Base [24118] ,Village , Tehsil- Barmer , District- Barmer** Collected from **Outlet Of STP** Collected on **12/07/2024**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **22/07/2024** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	pH	6.92
2	Total Suspended Solids mg/l	8
3	Chemical Oxygen Demand (COD) mg/l	14.1
4	Bio-Chemical Oxygen Demand (BOD) (3days at 27° C) mg/l	4.2
5	Oil & Grease mg/l	Not traceable

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **22/07/2024**

Dr. Narain Bhoot

BOARD ANALYST

Rajasthan State Pollution Control Board

Regional Office Balotra

Regional office,Rajasthan state pollution control Board,Jasol phanta,OppJDVVNL office,Jasol Road Balotra,District -Balotra

Phone: 9667576064

Fax: 9667576064

Signature Not Verified

Digitally signed by Narain Bhoot
Date: 2024.07.22 13:30:59 IST
Reason: SelfAttested
Location:

Regional Office, Balotra
Rajasthan State Pollution Control Board
Jasol Phanta, Opp. Jdvvnl Office, Balotra, Barmer

RPCB/RO/Balotra/BI-453/ 2707 Date: 22/10/2024

GIC (O&G),
Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri,
Jaipur.

Sub.:- Inspection report and Analysis report for CTO (Expansion) of Operation Base of M/s Vedanta Limited (Cairn Oil & Gas).

Ref.:- Final Show-cause notice issued vide Head Office letter dated 12.09.2024.

Sir,

With reference to above please find enclosed inspection report of M/s **Vedanta Limited (Cairn Oil & Gas)** located at **Village-Nagana, Tehsil-Barmer**, District-Barmer for necessary action please.

Encl.: - As above

Yours Sincerely,

(Rajkumar Sehra)
SEE & Regional Officer

Inspection Report

(Under Section 23 of the Water Act 1974, Under Section 24 of the Air Act 1981 and Under Section 10 of EP Act 1986)

1	a. Name of the Industry:	**Vedanta Limited, Cairn Oil and Gas (Old Name Cairn India Limited)**			
	b. Address of the Industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		Operation Base (Township)	**Nagana**	**Barmer**	**Barmer**
	c. E-mail:	**ankit.sharma@cairnindia.com**			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**21.10.2024**			
3	Name and designation of the person contacted:	**Mr. Ankit Sharma, Sustainability Manager**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Oil & Gas – Exploration & Production**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	**As submitted with application.**			
10	Status of consent under the Water Act, 1974:	CTO issued vide letter no. **F(Tech)/Barmer(Barmer)/5148(1)/2023-2024/7646-7648**, Order No: **2023-2024/Oil and Gas/8938**, dated **22/03/2024** under Air and Water Acts. **CTO Valid till 28/02/2029.** **CTO Expansion** applied vide application dated 26/05/2024 **(Unit Id 24118, App Id-373143).** **CTE Expansion** applied vide application dated 29/07/2024 (Unit Id. **24118, App Id- 378580).**			
11	Status of consent under Air Act, 1981:	CTO issued vide letter no. **F(Tech)/Barmer(Barmer)/5148(1)/2023-2024/7646-7648**, Order No: **2023-2024/Oil and Gas/8938**, dated **22/03/2024** under Air and Water Acts. **CTO Valid till 28/02/2029.** **CTO Expansion** applied vide application dated 26/05/2024 **(Unit Id 24118, App Id-373143).** **CTE Expansion** applied vide application dated 29/07/2024 (Unit Id. **24118, App Id- 378580).**			
12	Status of authorization under HWM Rules	Authorization Number - **RPCB/HWM/2021-2022/HDF/HSW/88** valid till dated: **30/06/2026.**			
13	Name of raw materials with quantity (per day or month or annum)	Residential complex			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**OPERATIONAL BASE- 2000 PERSONS** **Total Built up Area 61889.48 SQM** **Completed Built up Area till date 34344.37 SQM**			
15	Water related:				

<table>
<tr><td></td><td>1.</td><td>Water sourced from CGWA authorized Ground Water Source</td><td>Water will be sourced from CGWA authorized Ground Water Source</td></tr>
<tr><td></td><td>2</td><td>Digital meters – records are maintained in form of digital data</td><td>Digital meters – records will be maintained in form of digital data.</td></tr>
<tr><td></td><td>3</td><td>Meter reading (if meter provided)</td><td>--</td></tr>
<tr><td></td><td>4</td><td>Metering arrangement for water consumption in various process/ use</td><td>--</td></tr>
<tr><td></td><td>5</td><td>Water consumption process/ purpose wise</td><td>Domestic and intermittently for other activities</td></tr>
<tr><td></td><td>6</td><td>Logbook maintained</td><td>Logbook will be maintained</td></tr>
<tr><td>16</td><td></td><td>Wastewater generation (Stream wise) per day</td><td>Domestic wastewater will be treated through onsite STP of capacity 300 KLD, however during inspection the STP was found under erection and will take around 20 days for completion (as per representative). Moreover, the unit will treat the waste water so generated through existing STP which was accorded vide consent letter dated 22.03.2024.
<table>
<tr><th colspan="4">For 6 Towers + Recreation Centre</th></tr>
<tr><th>Quantity of Effluent Generated (KLD)</th><th>Recycled/ reuse (KLD</th><th>Disposed/ Discharged (KLD)</th><th>Mode of Reuse</th></tr>
<tr><td>143</td><td>143</td><td>0</td><td>Irrigation, Green Belt area development & Flushing</td></tr>
</table></td></tr>
<tr><td>17</td><td></td><td>Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?</td><td>-</td></tr>
<tr><td>18</td><td colspan="3">IN CASE EFFLUENT TREATMENT PLANT (ETP) PROVIDED, DETAILS OF SAME (IN CASE OF MULTIPLE ETP'S OR STP'S, PLEASE PROVIDE DETAILS FOR ALL): N.A.</td></tr>
<tr><td></td><td>A</td><td>Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):</td><td>-</td></tr>
<tr><td></td><td>B</td><td>Operational status of ETP units at the time of inspection:</td><td>-</td></tr>
<tr><td></td><td>C</td><td>Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading</td><td>-</td></tr>
<tr><td></td><td>D</td><td>Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.</td><td>-</td></tr>
<tr><td></td><td>E</td><td>Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?</td><td>-</td></tr>
<tr><td></td><td>F</td><td>Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen</td><td>-</td></tr>
<tr><td></td><td></td><td>Discharge of wastewater (per day)</td><td>-</td></tr>
<tr><td>20</td><td></td><td>Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:</td><td>-</td></tr>
<tr><td>21</td><td></td><td>Recycle of treated effluent (if any)</td><td>-</td></tr>
</table>

22	Details of recycling arrangements	-
23	Metering arrangements for recycling? If yes, then meter reading	-
24	Whether industry is a member of CETP? Provide details.	-
25	CETP inlet norms	-
26	Method of conveyance of wastewater from industry to CETP:	-
27	Adequacy of the CETP for total effluent reaching CETP	-
28	Details of air pollution:	

A		**Process Stacks:**						
	SR NO	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?	
	1	Not Applicable						
	I)	Status of energy meter & hour meter	-					
	II)	Status of logbook of operation and meter	-					
B		**Flue gases stacks**						
	SR NO	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	1	Not Applicable		-				
	I)	Status of energy meter & hour meter	Not Applicable.					
	II)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: **NA**						
	S. NO.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
	NOT APPLICABLE							
	I)	Status of energy meter & hour meter	Not Applicable					
	II)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: **Not Applicable**						
	A	For Liquid For Hazardous Waste (Solid) If Combined						
	B	Status of operation at the time of Inspection:						

	C	Temperature °C	Primary Chamber			
			Secondary Chamber			
	I)	Status of energy meter & hour meter				
	II)	Status of logbook of operation and meter				
E		Details of D. G. Sets				
	SR. NO.	Rating	Status of Acoustic enclosure	Details of Stack (mtrs)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	**3 x 1010 KVA**	Provided	30	Adequate	These DG sets are used only in case of emergency during power outage.
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	Details about Hazardous Waste Management: Details as per HWA application submitted are provided below.				
	SR NO	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
		Used or spent oil	5.1	5 KL/ANNUM Reuse in process/sales to registered recyclers		
32		Verification and irregularities/ gap found in manifests	**No irregularities observed.**			
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-			
34		WHETHER INDUSTRY IS A MEMBER OF TSDF SITE OR NOT? **UNIT HAS ITS OWN CAPTIVE TSDF FACILITY AT MPT**				
35	A	Status of logbook for hazardous waste:	**NA**			
	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**			
	C	Status of display board at the storage area	**All waste storage areas are well marked**			
36		Electric service number	**Captive Power from MPT**			
37		Water service number	**Water sourced from MPT. (Water sourced from authorized ground water source Thumbli)**			
38		Other relevant information regarding the industry, including complaints				
39		Details of water/ wastewater sample collected during inspection	-			
40		Details of air /emission sample collected during inspection	-			

41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**
42	CESS VERIFICATION		
	A	Consumption of water in different categories for cess assessment	
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Specific non- compliances if any, observed during inspection:	During inspection of the unit, out of total 12 towers six towers and club house were found completely constructed, however furnishing work of two towers and club house/recreation centre was under process and will be completed within upcoming 10 days (as per representative). Moreover, rest six towers were still under erection and will take next four to six months, for which unit will apply separate Consent to Operate application after completion of construction work.

Recommendations: - In light of aforementioned facts, Unit's Consent to Operate-Expansion application dated 26.05.2024 may be considered for grant for completed project only i.e. six towers and one recreation center having built-up area as 34344.37 sqm. or fulfillment of other statutory requirements with condition as deemed appropriate.

Himmat Singh Shekhawat
JEE

C/s

Rajkumar Sehra
Regional Officer, Balotra

Photographic evidence:


Latitude: 25.940673
Longitude: 71.491945
Altitude: 150.03±15 m
Accuracy: 460.0 m
Time: 21-10-2024 16:26
Note: cem

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-03 (Old name Mangala Well Pad-03)
2	Complete Postal Address of the industry	Village Khanji Ka Tala Tehsil:Barmer District:Barmer , Rajasthan
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'50.74"E 25°58'28.10"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. Bhoma Ram Jat, Chief Environment Manager – Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	1. Bhala Ram Siyag, Assistant Environment Engineer 2. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July, 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2019-2020/HDF/2943 dated 03/03/2020 and valid till 30/06/2024
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2019-2020/HDF/2943 dated 03/03/2020 and valid till 30/06/2024
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11127-11129 dated 02/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	25000.00 BOPD	Operational
2	Natural Gas	5.00 MMSCFD	Operational

Detail of Renewal HWA Application: **Application ID** 282213 **Unit ID** 24118
Date of Application: 08/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925 MT/WELL SLF/Coprocessing
2	Sludge containing oil	2.2	53 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL SLF/Coprocessing
4	Used or spent oil	5.1	5 MT/WELL/ANNUM Reuse in process/sales to registered recyclers
5	Waste/residue containing oil	5.2	55 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL/ANNUM Sales to Registered Recycler only
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/ANNUM Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/ANNUM SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	

BJ Total

	1	Exploration and production of Hydrocarbon and local separation facility	1.Contaminated oily rags (33.2) 2. Spent/Used Oil (Category 5.1); 3. Waste/ residue containing Oil (Category 5.2) (Waste Oil)	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 2316 BOPD Natural Gas: 0.82 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 2312 BOPD Natural Gas: 0.81 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2) - 0.192 MT Spent/ Used Oil (Cat 5.1); -0.030 KL	Contaminated oily rags (33.2) Spent/ Used Oil (Cat 5.1); Waste/ residue containing Oil (Cat 5.2) Waste Oil	0.562 MT 0.227 KL 18.290 KL

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size: 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19	Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)
3	Alicid Organic	GPCB AWH-37547 valid till 31.03.2024	Recycling	Schedule I Cat. 33.1, 5.1 & 5.2

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.

Please make observations on the below:

1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste.
2. Labeling of HW containers in form 8 : Applicable.
3. Compliance of all Marifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory
4. Transportation HW only by authorized sender or receiver: Yes
5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable
6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing: Yes
7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable

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	8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	---

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:

In light of aforementioned facts, industry's application dated 08/05/2021 (application id: 282213 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.754 MT	N.A.	Nil	Ambuja Cement	0.754 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.257 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.257 KL	Nil
3	Waste/ residues containing Oil (Cat. 5.2) (Waste Oil)	Nil	Nil	Nil.	18.290 Kl	Nil	Nil	Nil	N.A.	Nil	Atlas Organics	18.290 Kl	Nil

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report					
1	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction from Mangla Old Well Pad 08 (PML1-Mangala-Well Pad-08)			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		MWP-08	Nagana	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	13th April 2022			
3	Name and designation of the person contacted:	Mr. Surender Singh, Environment Consultant			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Production of Hydrocarbons			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	-			
10	Status of consent under the Water Act, 1974:	**CTO Valid till 31.05.2022.** **CTO Renewal** application with Unit ID 24118 & application Id-299564 submitted on 30.01.2022			
11	Status of consent under Air Act, 1981:	Same as above			
12	Status of authorization under HWM Rules	**HWA vide authorization No.** RPCB/HWM/2018-2019/HSW/HSW/236.valid till 30/04/2023			
13	Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**Crude Oil**: 9000 BOPD **Natural Gas**: 3.10MMSCFD			
15	Water related:				
1.	Source of Water	Water sourced from CGWA authorized Ground Water Source			
2	Status of metering arrangement on Sources	-			

	3	Meter reading (if meter provided)	-
	4	Metering arrangement for water consumption in various process/ use	-
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
	6	Status of logbook of water drawl and consumption	-
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic wastewater is treated through onsite septic tank followed soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Disposal at HDPE lined concrete evaporation pond for natural evaporation within the well pad.
18	In case Effluent Treatment Plant (ETP) provided, details of same (in case of multiple ETP's or STP's, please provide details for all):		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharge in solar pond for evaporation and domestic waste water in septic tank followed by soak pit.
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-

26		Method of conveyance of wastewater from industry to CETP:				-	
27		Adequacy of the CETP for total effluent reaching CETP				-	
28		Details of air pollution:					
A		**Process Stacks:**					
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	-	-	-	-	-	-	-
	i)	Status of energy meter & hour meter	-				
	ii)	Status of logbook of operation and meter	-				
B		**Flue gases stacks**					
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
	1	Mobile Flare	N. Gas	-	Provided	Stack height	Adequate	Used during drilling and well maintenance
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.					
	S.No.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM	
	i)	Status of energy meter & hour meter	Not Applicable				
	ii)	Status of logbook of operation and meter	Not Applicable				
D		Details of incinerator: Not Applicable					
	A	For Liquid For Hazardous Waste (Solid)					

		If Combined		
	B	Status of operation at the time of Inspection:		
	C	Temperature °C	Primary Chamber	
			Secondary Chamber	
	i)	Status of energy meter & hour meter		
	ii)	Status of logbook of operation and meter		

E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	2 X 1850 KVA	Provided	-	Adequate	Used only during drilling & well maintenance activity. During inspection, no drilling activities were carrying out at well pad.
	2	2 X 440KVA	Provided	-	Adequate	
	3	3X 500 KVA	Provided	-	Adequate	
	4	3 X 62 KVA	Provided	-	Adequate	
	5	4 X 1500 KVA	Provided	-	Adequate	
F		Source of foul odor and measures taken to control, if any: This facility is not generating any foul order.				
30		Fly ash management with all details, if applicable: Not Applicable.				
31	A	**Details about Hazardous Waste Management:**				

	Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Reprocess
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8.00 MT/WELL/Annum SLF/Sale to authorized recycler
	6	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered Recycler

	7	Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess
	8	Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum Captive SLF/Co processing/Incineration/Registered Recyclers
	9	Concentration or evaporation residues	37.3	50 MT/Well/Annum Captive SLF
32		Verification and irregularities/ gap found in manifests		No irregularities observed.
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, if applicable		-
34		Whether industry is a member of TSDF site or not? Unit has its own captive TSDF facility at MPT		
35	A	Status of logbook for hazardous waste:		-
	B	Status of display board of size 4' x 6' at the main gate		-
	C	Status of display board at the storage area		Displayed
36		Electric service number		Captive Power Generation at MPT and supplied to Mangla Well Pads through Over Headline
37		Water service number		Water sourced from MPT through pipeline (Water sourced from authorized ground water source)
38		Other relevant information regarding the industry, including complaints		No particular complaints received against unit at RSPCB Balotra. Matter in Hon'ble NGT O.A. No. 54/2019 is presently pending.
39		Details of water/ waste water sample collected during inspection		-
40		Details of air /emission sample collected during inspection		-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied
42		Cess verification		
	A	Consumption of water in different categories for cess assessment		Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)
		Category- I		
		Category - II		
		Category - III		
		Category - III		
		Category-IV		
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)		-
	C	Details of the deposition of cess		-

43	Specific non- compliances if any, observed during inspection:	-

Recommendation: In light of aforementioned facts, industry's application dated 30/01/2022 (application id: 299564, unit id 24118) for CTO Renewal may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Jitendra Dabi) JEE	C/s (Rajkumar Sehra) Regional Officer

RAJASTHAN STATE POLLUTION CONTROL BOARD					
		Inspection Report			
1	a. Name of the Industry:	**Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction from Mangla Old Well Pad 07 (PML1-Mangla-Well Pad-07)**			
	b. Address of the Industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		MWP-07	Jogasar Kuwan	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**13th April 2022**			
3	Name and designation of the person contacted:	**Mr. Surender Singh, Environment Consultant**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Production of Hydrocarbons**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	-			
10	Status of consent under the Water Act, 1974:	**CTO Valid till 30.06.2022.** **CTO Renewal** application with Unit ID 24118 & application id-303548 submitted on 25.02.2022			
11	Status of consent under Air Act, 1981:	Same as above			
12	Status of authorization under HWM Rules	**HWA vide authorization No.** RPCB/HWM/2021-2022/HDF/HSW/39 valid till 31/10/2026.			
13	Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**As per Existing CTO:** **Crude Oil**: 13000 BOPD **Natural Gas**: 2.6MMSCFD		**As per CTO Renewal Application:** **Crude Oil**: 13000 BOPD (no change) **Natural Gas**: 3.0 MMSCFD	
15	Water related:				
1.	Source of Water	Water sourced from CGWA authorized Ground Water Source			
2	Status of metering arrangement on Sources	Provided			

	3	Meter reading (if meter provided)	-
	4	Metering arrangement for water consumption in various process/ use	-
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
	6	Status of logbook of water drawl and consumption	-
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic wastewater is treated through onsite septic tank followed soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Disposal at HDPE lined concrete evaporation pond for natural evaporation within the well pad.
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all):		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharge in solar pond for evaporation and domestic waste water in septic tank followed by soak pit.
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-

26		Method of conveyance of wastewater from industry to CETP:				-		
27		Adequacy of the CETP for total effluent reaching CETP				-		
28		Details of air pollution:						
A		**Process Stacks:**						
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?	
		-	-	-	-	-	-	
	i)	Status of energy meter & hour meter	-					
	ii)	Status of logbook of operation and meter	-					
B		**Flue gases stacks**						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
	1	Mobile Flare	N. Gas	-	Provided	Stack height	Adequate	Used during drilling and well maintenance
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.						
	S.No.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: Not Applicable						
	A	For Liquid For Hazardous Waste (Solid)						

		if Combined				
	B	Status of operation at the time of inspection:				
	C	Temperature °C	Primary Chamber			
			Secondary Chamber			
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	2 X 1850 KVA	Provided	-	Adequate	Used only during drilling & well maintenance activity. During inspection, no drilling activities were carrying out at well pad.
	2	2 X 440KVA	Provided	-	Adequate	
	3	3X 500 KVA	Provided	-	Adequate	
	4	3 X 62 KVA	Provided	-	Adequate	
	5	4 X 1500 KVA	Provided	-	Adequate	
F		Source of foul odor and measures taken to control, if any: This facility is not generating any foul order.				
30		Fly ash management with all details, if applicable: Not Applicable.				
31	**A**	**Details about Hazardous Waste Management:**				
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Reprocess		
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8.00 MT/WELL/Annum SLF/Sale to authorized recycler		
	6	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered Recycler		

	7	Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess
	8	Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum Captive SLF/Co processing/Incineration/Registered Recyclers
	9	Concentration or evaporation residues	37.3	50 MT/Well/Annum Captive SLF
32		Verification and irregularities/ gap found in manifests		No irregularities observed.
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, if applicable		-
34		Whether industry is a member of TSDF site or not? Unit has its own captive TSDF facility at MPT		
35	A	Status of logbook for hazardous waste:		-
	B	Status of display board of size 4' x 6' at the main gate		Board displayed at site
	C	Status of display board at the storage area		Displayed
36		Electric service number		Captive Power Generation at MPT and supplied to Mangla Well Pads through Over Headline
37		Water service number		Water sourced from MPT through pipeline (Water sourced from authorized ground water source)
38		Other relevant information regarding the industry, including complaints		No particular complaints received against unit at RSPCB Balotra. Matter in Hon'ble NGT O.A. No. 54/2019 is presently pending.
39		Details of water/ waste water sample collected during inspection		-
40		Details of air /emission sample collected during inspection		-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied
42	Cess verification			
	A	Consumption of water in different categories for cess assessment		Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)
		Category- I		
		Category - II		
		Category - III		
		Category - III		
		Category-IV		
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)		-
	C	Details of the deposition of cess		-

43	Specific non- compliances if any, observed during inspection:	-
Recommendation: In light of aforementioned facts, industry's application dated 25/02/2022 (application id: 303548, unit id 24118) for CTO Renewal may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.		
(Jitendra Dabi) JEE		C/o (Rajkumar Sehra) Regional Officer

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-16
2	Complete Postal Address of the industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan.
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'30.58"E 25°57'15.29"N
6	Email	RJCN.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	1.Sh. Bhala Ram Siyag, Assistant Environment Engineer 2. Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2019-2020/HDF/2920 dated 19/02/2020 and valid till 31/12/2023
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2019-2020/HDF/2920 dated 19/02/2020 and valid till 31/12/2023
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11948-11950 dated 31/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	10000.00 BOPD	Operational
2	Natural Gas	2.00 MMSCFD	Operational

Detail of Renewal HWA Application: **Application ID** 282386 **Unit ID** 24118
Date of Application: 25/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

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Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	1 Contaminated cotton rags and other cleaning material (Category 33.2) 2 Spent/Used Oil (Category 5.1); KL 3. Waste/residues containing Oil (Category 5.2) (Waste Oil)	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 2382 BOPD Natural Gas: 0.53 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 3024 BBLS/day Natural Gas: 0.71 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2) -0.127 MT Spent/ Used Oil (Cat 5.1); 0.214 Kl		Contaminated oily rags (33.2) - 0.452 MT Spent/ Used Oil (Cat 5.1); 0.239 Kl Waste/residues containing Oil (Category 5.2) (Waste Oil)- 17.780 KL	

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are dispcsed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19 Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)
3	Alicid Organic	GPCB AWH-37547 valid till 31.03.2024	Recycling	Schedule I Cat. 33.1, 5.1 & 5.2

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.	
	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	—

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 25/05/2021 (application id: 282386 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfil	Recycled/ Utilized	Recyding	Utilization	Pre-process ing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Ambuja Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.453 Kl	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.453 Kl	Nil
3	Waste/residues containing Oil (Category 5.2) (Waste Oil)	Nil	Nil	Nil	17.780 KL	Nil	Nil	Nil	N.A.	Nil	Atlas	17.780 KL	Nil

34 Total

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of incustry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-11
2	Complete Postal Address of the Industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan.
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'30.58"E 25°57'15.29"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	Sh.Bhala Ram Siyag, Assistant Environment Engineer Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2019-2020/HDF/2922 dated 19/02/2020 and valid till 31/12/2023.
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2019-2020/HDF/2922 dated 19/02/2020 and valid till 31/12/2023.
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized [Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11189-11191 dated 03/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	13,500.00 BOPD	Operational
2	Natural Gas	3.00 MMSCFD	Operational

Detail of Renewal HWA Application: **Application ID** 282242 **Unit ID** 24118
Date of Application: 10/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products procuced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	1 Contaminated cotton rags and other cleaning material (Category 33.2) 2 Spent/Used Oil (Category 5.1): KL	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 6802 BOPD Natural Gas: 1.86 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 5888 BBL/day Natural Gas: 1.97 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2) -0.127 MT Spent/ Used Oil (Cat 5.1);- Nil		Contaminated oily rags (33.2) -0.452 MT Spent/ Used Oil (Cat 5.1);- 0.234 KL	

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19	Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorizec actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.

Satisfied

	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transpcrtation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	----

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 10/05//2021 (application id: 282242 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-process ing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Ambuja Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.234 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MP'	0.234 KL	Nil

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FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-04 (Old name Mangala Well Pad-04)
2	Complete Postal Address of the Industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan.
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'30.58"E 25°57'15.29"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore 8003996695
9	Name and Designation of the officials visiting the Unit	Bhala Ram Siyag, Assistant Environment Engineer Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2017-2018/HDF/2620 dated 11/01/2018 and valid till 30/06/2022.
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2017-2018/HDF/2620 dated 11/01/2018 and valid till 30/06/2022.
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transbcundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/9159-9161 dated 22/12/2016 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	6,000.00 BOPD	Operational
2	Natural Gas	1.20 MMSCFD	Operational

Detail of Renewal HWA Application: **Application ID** 282410 **Unit ID** 24118
Date of Application: 24/06/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	1.Contaminated oily rags (33.2) 2. Spent/Used Oil (Category 5.1);	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 1968 BOPD Natural Gas: 0.67 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 2169 BOPD Natural Gas: 0.70 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2) - 0.127 MT Spent/ Used Oil (Cat 5.1); -0.045 KL		Contaminated oily rags (33.2) Sludge Spent/ Used Oil (Cat 5.1);	0.452 MT 0.420 KL

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer

18 Details of HW storage, quantity of HW stored and period of storage

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19 Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20 Compliance w.r.t. labeling, manifest system, records, annual returns etc.

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	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing: Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3: Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facilty	Yes
22	Environmental Monitoring	Monitoring is carried out as per approved monitoring plan
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	---

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 24/06//2021 (application id: 282410 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recyding	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Ambuja Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1): KL	Nil	Nil	0.465 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.465 KL	Nil

31 Pcm

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Margla Well Pad-05 (old name Mangala Well Pad -05)
2	Complete Postal Address of the Industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan,
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'2.04"E 25°56'40.22"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	Sh. Bhala Ram Siyag, Assistant Environment Engineer Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2020-2021/HDF/3295 dated 02/03/2021 and valid till 30/06/2024
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2020-2021/HDF/3295 dated 02/03/2021 and valid till 30/06/2024
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11478-11480 dated 09/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	8000.00 BOPD	Operational
2	Natural Gas	2 MMSCFD	Operational

Detail of Renewal HWA Application: **Application ID** 282227 **Unit ID** 24118
Date of Application: 09/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16	Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016
	The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	Contaminated cotton rags and other cleaning material (Category 33.2) Spent/Used Oil (Category 5.1): KL Sludge containing Oil (Category 2.2): MT	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 3488 BBL/Day Natural Gas: 0.80 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 3742 BBL/Day Natural Gas: 0.93 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2) : 0.127 MT Spent/ Used Oil (Cat 5.1): 0.250 KL		Contaminated oily rags (33.2) 0.452 MT Spent/ Used Oil (Cat 5.1): 0.343 KL Sludge containing Oil (Category 2.2): 1.08 MT	

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Linec/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Oper/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19	Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.

3 Filed

	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out by industry by their own.
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	----

(Anil Kumar Faliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 09/05//2021 (application id: 282227-unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Sh. Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Amrujia Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.593 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.593 KL	Nil
3	Sludge containing Oil (Category 2.2): MT	Nil	1.08 MT	Nil	Nil	Nil	Nil	N.A.	N.A.	Nil	MPT landfill	1.08 MT	Nil

31-10

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-7
2	Complete Postal Address of the Industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan,
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'30.58"E 25°57'15.29"N
6	Email	RJCN.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	Sh. Bhala Ram Siyag, Assistant Environment Engineer Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazerdous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2017-2018/HDF/2619 dated 11/01/2018 and valid till 30/06/2022.
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2017-2018/HDF/2619 dated 11/01/2018 and valid till 30/06/2022
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/9165-9167 dated 22/12/2016 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	13,000.00 BOPD	Operational
2	Natural Gas	2.60 MMSCFD	Operational

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Detail of Renewal HWA Application: **Application ID** 282405 **Unit ID** 24118
Date of Application: 16/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

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Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	Contaminated cotton rags and other cleaning material (Category 33.2) Spent/Used Oil (Category 5.1); KL	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 2248 BOPD Natural Gas: 0.73 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 3308 BBL/day Natural Gas: 1.17 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2) -0.127 MT Spent/ Used Oil (Cat 5.1); 0.362 KL		Contaminated oily rags (33.2) -0.452 MT Spent/ Used Oil (Cat 5.1); - 0.378 KL	

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19 Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actua user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20 Compliance w.r.t. labeling, manifest system, records, annual returns etc.

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	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contamirated sites, if any, within and outside the industry premises	Nil
24	Remarks	---

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 24/06//2021 (application id: 282405 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Tabe 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Ambuja Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.740 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.740 KL	Nil

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-14
2	Complete Postal Address of the Industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan,
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'30.58"E 25°57'15.29"N
6	Email	RJCN.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	Sh. Bhala Ram Siyag, Assistant Environment Engineer Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2020-2021/HDF/3102 dated 30/06/2020 and valid till 31/12/2023.
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2020-2021/HDF/3102 dated 30/06/2020 and valid till 31/12/2023.
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized [Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11951-11953 dated 31/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	11,500.00 BOPD	Operational
2	Natural Gas	2.50 MMSCFD	Operational

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Detail of Renewal HWA Application: **Application ID** 282318 **Unit ID** 24118
Date of Application: 13/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	Contaminated cotton rags and other cleaning material (Category 33.2) Spent/Used Oil (Category 5.1); KL	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 3633 BOPD Natural Gas: 1.17 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 3902 BBl/day Natural Gas: 1.09 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2)- 0.127 MT Spent/ Used Oil (Cat 5.1);-0.135 KL		Contaminated oily rags (33.2)- 0.452 MT Spent/ Used Oil (Cat 5.1); - 0.422KL	

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at: MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are dispcsed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Ni	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19	Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.

	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	---

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 13/05/2021 (application id: 282318 - unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat: 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Ambuja Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.557 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.557 KL	Nil

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FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-15
2	Complete Postal Address of the Industry	Village Jogasar Kuwan Tehsil:Baytau District:Barmer , Rajasthan,
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°31'30.58"E 25°57'15.29"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environmen: Manager - Onshore 8003996696
9	Name and Designation of the officials visiting the Unit	Sh. Bhala Ram Siyag, Assistant Environment Engineer Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells is being pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and polymer solution is being received from MPT and pumped into injection wells. There is no processing of crude oil at wellpad. No raw material is required for production of hydrocarbons except certain chemicals being used for well maintenance activities. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	July 2011
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2020-2021/HDF/3100 dated 30/06/2020 and valid till 29/02/2024
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2020-2021/HDF/3100 dated 30/06/2020 and valid till 29/02/2024
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11110-11112 dated 01/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	22000.00 BOPD	Operational
2	Natural Gas	5.00 MMSCFD	Operational

Detail of Renewal HWA Application: **Application ID** 282292 **Unit ID** 24118
Date of Application: 12/05/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL (SLF/Coprocessing)
2	Sludge containing oil	2.2	53 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL /Annum Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/Annum SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL /Annum Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/Annum Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/Annum SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or annum)	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)	
1	Exploration and production of Hydrocarbon and local separation facility	1 Contaminated cotton rags and other cleaning material (Category 33.2) 2 Spent/Used Oil (Category 5.1); KL 3 Waste/residues containing Oil (Category 5.2) (Waste Oil) 4 Drill cuttings containing oil (Category 2.1); MT	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 7536 BOPD Natural Gas: 1.79 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 7392 BBLS/day Natural Gas: 1.84 MMSCFD	No raw material required for hydrocarbon production	Contaminated oily rags (33.2)- 0.332 MT Spent/ Used Oil (Cat 5.1); - 0.249 KL Drill cuttings containing oil (Category 2.1); - 411.945 MT		Contaminated oily rags (33.2)- 0.502 MT Spent/ Used Oil (Cat 5.1); -0.286 KL Waste/residues containing Oil (Category 5.2) (oily sludge) -9.21 MT	

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas, Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open Pits but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m

(iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shed (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Ni	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19 Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filing) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing. 2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.		
20	Compliance w.r.t. labeling, manifest system, records, annual returns etc.	
	Please make observations on the below: 1. Adequate packing of HW: Colour coded dustbins provided for oily rags. Dedicated waste pits provided collection of drilling waste. 2. Labeling of HW containers in form 8 : Applicable. 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory 4. Transportation HW only by authorized sender or receiver: Yes 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable (Waste is being managed within same state) 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Not applicable 7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contaminated sites, if any, within and outside the industry premises	Nil
24	Remarks	-----

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 12/05/2021 (application id: 282292 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Raikumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning material (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.8342 MT	N.A.	Nil	Ambuja Cement	0.8342 MT	Nil
2	Spent/Used Oil (Cat 5.1); KL	Nil	Nil	0.535 KL	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.535 KL	Nil
3	Waste/residues containing Oil (Category 5.2) (Waste Oil)	Nil	9.21 MT	Nil	Nil	Nil	Nil	Nil	N.A.	Nil	MPT landfill	9.21 MT	Nil
4	Drill cuttings containing oil (Category 2.1); MT	Nil	411.945 MT	Nil	Nil	Nil	Nil	Nil	N.A.	Nil	MPT landfill	411.945 MT	Nil

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report (First time detailed inspection or as and when detailed inspection is required)					
1	a. Name of the Industry:	**Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extractionfrom Mangala Well Pad -18(PML 1/Mangala/Well Pad-18)**			
	b. Address of the Industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		MWP-18	Khanji Ka Tala	Bayatu	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**21st October 2021**			
3	Name and designation of the person contacted:	**Sh. Surender Singh, Environment AM**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Production of Hydrocarbons**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	**Enclosed**			
10	Status of consent under the Water Act, 1974:	**CTO Valid till 31.10.2021.CTO Renewal as well as expansion** application with Unit ID 24118 & application No.282756 submitted on 17.06.2021			
11	Status of consent under Air Act, 1981:	**CTO Valid till 31.10.2021.CTO Renewal as well as expansion** application with Unit ID 24118 & application No. 282756 submitted on 17.06.2021			
12	Status of authorization under HWM Rules	**HWA vide authorization No.** RPCB/HWM/2016-2017/HSW/HSW/448.valid till 31/10/2021. HWA renewal application id 280550 unit id 24118 submitted on 01.04.2021			
13	Name of raw materials with quantity (per day or month or annum)	-			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**As per Existing CTO** **Crude Oil**:1000 BOPD **Natural Gas**: 0.2 MMSCFD **As per CTO Renewal cum Expansion Application:** **Crude Oil**: 3000 BOPD **Natural Gas**: 2 MMSCFD			
15	Water related:				

	1.	Source of Water	Water sourced from CGWA authorized Ground Water Source
	2	Status of metering arrangement on Sources	**Digital meters – records are maintained in form of digital data**
	3	Meter reading (if meter provided)	Meter readings records available.
	4	Metering arrangement for water consumption in various process/ use	Meter readings records available
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
	6	Status of logbook of water drawl and consumption	Logbook maintained
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Solar evaporator (8m3/day) is installed for enhancement of solar evaporation at well pad. Domestic wastewater is treated through onsite septic tank followed soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all):		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body. adequacy of disposal:	
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-

26		Method of conveyance of wastewater from industry to CETP:				-		
27		Adequacy of the CETP for total effluent reaching CETP				-		
28		Details of air pollution:						
A		**Process Stacks:**						
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?	
		-	-	-	-	-	-	
	i)	Status of energy meter & hour meter	-					
	ii)	Status of logbook of operation and meter	-					
B		**Flue gases stacks**						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
	1	**Mobile Flare**	**Gas**	-	**13**	**NA**	**NA**	**NA**
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**						
	S.No.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of incinerator: **Not Applicable**						
	A	For Liquid For Hazardous Waste (Solid) If Combined						
	B	Status of operation at the time of Inspection:						

	C	Temperature °C		Primary Chamber		
				Secondary Chamber		
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	2 X 1850 KVA	--	--	--	Used only during drilling & well maintenance activity. During inspection, no drilling activities were carrying out at well pad.
	2	2 X 440KVA	--	--	--	
	3	3X 500 KVA	--	--	--	
	4	3 X 62 KVA	--	--	--	
	5	4 X 1500 KVA	--	--	--	
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	**A**	**Details about Hazardous Waste Management:**				
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Reprocess		
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	10.00 MT/WELL/Annum SLF/Sale to authorized recycler		
	6	Contaminated cotton rags orother cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered Recycler		
	7	Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess		

	B	Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum CaptiveSLF/Coprocessing/Incineration/Registered Recyclers
	9	Concentration or evaporation residues	37.3	50 MT/Well/Annum CaptiveSLF
		Form IV Copy enclosed		
32		Verification and irregularities/ gap found in manifests	**No irregularities observed.**	
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-	
34		Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT Kawas, Barmer**		
35	A	Status of logbook for hazardous waste:	**Form 3 is being maintained**	
	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**	
	C	Status of display board at the storage area	**All waste storage areas are well marked, and board displayed**	
36		Electric service number	**Captive Power Generation at MPT and supplied to Mangala Well Pads through Over Headline**	
37		Water service number	**Water sourced from MPT through pipeline (Water sourced from authorized ground water source)**	
38		Other relevant information regarding the industry, including complaints	**No complaints received against this unit at RSPCB Balotra**	
39		Details of water/ waste water sample collected during inspection	-	
40		Details of air /emission sample collected during inspection	-	
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**	
42		Cess verification		
	A	Consumption of water in different categories for cess assessment	**Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)**	
		Category- I		
		Category - II		
		Category - III		
		Category - III		
		Category-IV		
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-	
	C	Details of the deposition of cess	-	
43		Specific non- compliances if any, observed during inspection:	-	

Date:21" October 21 Place:	Name: Bhala Ram Siyag, AEE Regional Office- Balotra

Recommendations:- In light of aforementioned facts, industry's application for CTO under Air and Water Act may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RSPCB, Balotra

FORMAT FOR INSPECTION OF INDUSTRIES
WITH REGARDS TO GENERATION AND MANAGEMENT OF HAZARDOUS WASTE

Sl. No	Particulars	Status/Details
1	Name of industry	M/s VEDANTA LIMITED (Cairn Oil & Gas) PML-1 Mangla Well Pad-18
2	Complete Postal Address of the Industry	Village Khanji Ka Tala Tehsil:Baytau District:Barmer , Rajasthan
3	Website	https://www.cairnindia.com
4	Tel and Fax Number	02982-660113
5	Longitude and Latitude	71°32'16.84"E 25°58'56.94"N
6	Email	RJON.EnvironmentManagerMPT@cairnindia.com
7	Date of visit	25/08/2021
8	Contact Person, Name, Designation and Contact Number	Dr. B. R. Jat, Chief Environment Manager - Onshore
9	Name and Designation of the officials visiting the Unit	1.Sh. Bhala Ram Siyag, Assistant Environment Engineer 2. Sh. Anil Kumar Paliwal, Junior Environment Engineer
10	Process description in brief for each product. Also attach process flow diagram indicating raw materials and sources of hazardous waste generation along with mass balance	
	It is a hydrocarbon exploration and production well pad. Production fluid (well fluid) from all wells will be pumped to MPT through intra field pipeline for further processing. Injection fluid containing separate produced water and alkali surfactant solution will be received from MPT and pumped into injection wells. There will be no processing of crude oil at MPT. No raw material is required for production of hydrocarbons. Details of hazardous waste is provided in section 15 below.	
11	Year of Commissioning	August 2020
12	Production (in MT or KL/ Day) of each product	See table below
13	Status of Consent under the Water Act, 1974	Consent granted vide order No. 2017-2018/HDF/2647 dated 21/02/2018 and valid till 31/10/2021
14	Status of Consent under the Water Act, 1981	Consent granted vide order No. 2017-2018/HDF/2647 dated 21/02/2018 and valid till 31/10/2021
15	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and details of Hazardous Waste (HW) authorized (Please also attach copy of authorization): HWA granted vide File No. F(HSW)/Barmer(Barmer)/7(1)/2009-2010/11130-11132 dated 02/03/2017 and valid till 31/10/2021	

Sr. No	Product	Quantity with Unit	Operational Status
1	Crude Oil	1000.00 BOPD	Operational
2	Natural Gas	0.20 MMSCFD	Operational

3/12/21

Detail of Renewal HWA Application: **Application ID** 280550 **Unit ID** 24118
Date of Application: 01/04/2021

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925 MT/WELL SLF/Coprocessing
2	Sludge containing oil	2.2	53 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL/ANNUM Reuse in process/sales to registered recyclers
5	Waste/residue containing oil	5.2	55 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	10 MT/WELL/ANNUM Incineration/Coprocessing
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/ANNUM Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/ANNUM SLF/Coprocessing

16 Name and Categories of HW generated and their respective quantity (Please specify all types of HW generated from the unit along with category as per Schedule I or II of the HOWM Rules, 2016

The details of various categories of hazardous wastes generation and their quantity, as verified by the inspecting team during the inspection are as below in Table- 1:

Sl. No.	Various Production Plant/ Process at the facility	Name of HW (with category) generated in Tonne and their quantity per Tonne of inputs*	HW generation (in Tonne) per ton of the consented product	HW generation as per the consented capacity of the product (Tonne per day of month or	Actual quantity of products produced, or inputs used				Actual quantity of HW generated			
					During current financial year (as on date of inspection)		During previous financial year		During current financial year (as on date of inspection)		During previous financial year	
					Product	Input	Product	Input	Product	Input	Product	Input

				annum)					
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)	(9)
1	Exploration and production of Hydrocarbon and local separation facility	1 Contaminated cotton rags and other cleaning material (Category 33.2) 2 Spent/Used Oil (Category 5.1); KL	No raw material required for production of hydrocarbon	Authorized quantities of Haz Waste provided in Section 15 above. Generation of Haz waste is not based on generation capacity	Crude Oil: 314 BOPD Natural Gas: 0.06 MMSCFD	No raw material required for hydrocarbon production	Crude Oil: 95 BBLS/day Natural Gas: 0.02 MMSCFD	No raw materia required for hydrocarbon producti on	Contaminated oily rags (33.2) -0.127 MT Spent/ Used Oil (Cat 5.1); 0.071 Kl	Contaminated oily rags (33.2) - 0.452 MT Spent/ Used Oil (Cat 5.1); 0.294 Kl

17	Captive Recycling/ Utilization/ Incineration/ Secured Land filling facility details	Captive TSDF present at MPT, Kawas. Barmer
18	Details of HW storage, quantity of HW stored and period of storage	

1. Storage facility details and capacity:
   (i) Lined/ unlined: Lined pits are available for interim storage of wastewater. Drill cuttings are disposed through coprocessing
   (ii) Open/ Covered and safe from rainwater intrusion: Open but with proper bund walls around the pits to avoid rain water intrusions.
   (iii) Capacity: Size : 60 m X 18 m X2.5 m
   (iv) In case of incinerable hazardous waste storage, comment on compliance of CPCB guidelines: Oily rags collected in waste bins and transferred to MPT for further disposal through coprocessing

2. Details of HW Stored

Table 2: Details of HW Stored

Sl. No. (10)	Name & Category of HW [as per Column (3) of Table 1] (11)	Actual HW generated in Tonne [sum of Column (8) and (9) of Table 1] (12)	Previous Stock (in Tonne) stored in storage shec (at the beginning of previous financial year) (13)	Actual Quantity (in Tonne) found stored on the day of inspection (14)	Balance (in Tonne) (Column 13 + Column 14) (15)	Latest Date of Transfer of HW to authorized recycler/ co-processor/TSDF/ etc. (16)
1.	Nil	NIL	NIL	NIL	Nil	16.07.2021 (Oily rags transferred to MPT TSDF yard)

3. Comments on whether HW is being sent to authorized recycler/co-processor TSDF/etc. timely in compliance with Rule 9 of the HOWM Rules : Yes

19 Categories and quantity of HW sent to authorized actual user/ common TSDF: NIL. There is a Captive TSDF at MPT (Refer HWA for TSDF, MPT RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022)

1. Details of the authorized actual user*/common TSDF, as applicable, whom HW sent:

Table 3A: Details of authorized actual user and TSDF

Sl. No. (17)	Name & address of the authorized common TSDF/ Actual User* (18)	Name of SPCB/PCC who granted authorization to the authorized TSDF/Actual user and authorization no. with its validity (19)	Activities for which authorization granted to the authorized TSDF/Actual user (specify among transportation/ recycling/ utilization/pre-processing/co-processing/incineration/ secured land filling) (20)	Name & categories of HW for which authorization granted to the authorized TSDF/Actual User* (21)
1.	Captive TSDF, MPT (VEDANTA LIMITED- Cairn Oil & Gas)	RPCB HWA No: RPCB/HWM/2017-2018/HSW/HSW/73 Valid till 28/02/2022	Landfill and Incineration	Schedule I Cat. 2.1, 2.2, 2.3, 3.1, 3.3, 33.1, 33.2, 35.1, 35.2, 35.3, 35.4, 36.1, 36.2, 37.1, 37.2, 37.3, 5.1 & 5.2
2	Ambuja Cement	RPCB HWA No: RPCB/HWM/2020-2021/CPM/ HSW/74 Valid till 31/07/2026	Coprocessing	Schedule I Cat. 2.1 (drill cutting) & 5.2 (oily rags)

*Actual user includes occupier who procures and processes HW for reuse, recycling, recovery, pre-processing, and utilization including co-processing.

2. Details of HW sent to the authorized actual user and TSDF, as applicable, since previous financial year (as per daily/annual record and manifest document Form 10): Please applicable data in Table 3B as attached with this format separately.

20 Compliance w.r.t. labeling, manifest system, records, annual returns etc.

Please make observations on the below:

1. Adequate packing of HW: No Waste Generated
2. Labeling of HW containers in form 8 : Applicable.
3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Satisfactory
4. Transportation HW only by authorized sender or receiver: Yes
5. NOC from the concerned SPCB/PCC if HW are sent for disposal to another State/UT: Not applicable
6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport incase HW is sent for recycling or utilization including co-processing : Yes

31-Jul-

	7. Prior intimation to SPCBs/PCCs of the states/UTs of transit in case of interstate transportation: Not applicable 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988 : Authorized Vehicles used 9. Daily records maintenance in Form 3 : Yes maintained 10. Timely submission of annual returns in Form 4 to the SPCB/PCC : Yes	
21	Safety facilities provided at storage facility	Yes
22	Environmental Monitoring	Monitoring is carried out as per the schedule of industry itself.
23	Details of HW contamirated sites, if any, within and outside the industry premises	Nil
24	Remarks	

(Anil Kumar Paliwal)
JEE, RPSCB, Balotra

(Bhala Ram Siyag)
AEE, RPSCB, Balotra

Recommendation:
In light of aforementioned facts, industry's application dated 01/04/2021 (application id: 280550 -unit id 24118) for authorization under HW Rules, 2016 may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

(Rajkumar Sehra)
Regional Officer, RPCB, Balotra

Table 3B: Details of HW sent to authorized actual user and TSDF listed in Table 3A since previous financial year till date of inspection

S. No.	Name of HW & Category (as per column 2 of the Table 2)	Quantity recycled/ Utilized/ Disposed in captive facility (in Tonne)			HW sent for Recycling/Utilization/Pre-processing/ Co- processing/ Incineration/ Secured Landfilling in Tonnes and to whom							Total HW recycled/ utilized in captive facility and sent to other authorized facility (Sum of column 24 – 33)	Quantity of hazardous waste store within the premises (as per column 15 of the Table 2)
		Incinerated	Secured Landfill	Recycled/ Utilized	Recycling	Utilization	Pre-processing	Co-processing	Incineration	Secured Land filling	Sent to whom (please specify S. No of Table 3A)		
-22	-23	-24	-25	-26	-27	-28	-29	-30	-31	-32	-33	-34	-35
1	Contaminated cotton rags and other cleaning materal (Cat. 33.2)	Nil	Nil	Nil	Nil	Nil	Nil	0.579 MT	N.A.	Nil	Ambuja Cement	0.579 MT	Nil
2	Spent/Used Oil (Cat 5.1); Kl	Nil	Nil	0.365 Kl	Nil	Nil	Nil	Nil	N.A.	Nil	Used in process at MPT	0.365 Kl	Nil

Regional Office, Balotra
Rajasthan State Pollution Control Board
Jasol Phanta ,Nakoda Road ,Dist-Balotra
E Mail : ro.balotara@gmail.com

RPCB/RO/Balotra/BI-453/663

Date: As signed

GIC (Oil & Gas)
R.S.P.C.B, Jaipur

Sub :- Regarding inspection report of **STP located at Operational Base of M/s Vedanta Ltd., Cairn Oil and Gas, Barmer.**

Ref:- 1. H.O. letter dated 23.06.2025
2. Inspection of the unit carried out on dated 01.07.2025

Sir,

With reference to above, please find enclosed herewith inspection report of "**STP located at Operational Base of M/s Vedanta Ltd., Cairn Oil and Gas, Village – Nagana, Tehsil – Baytu & District – Barmer**" for your kind perusal & further necessary action at H.O. level.

Yours Sincerely

(Deepak Tanwar)
SEE & Regional Officer

Signature valid
Digitally signed by Deepak Tanwar
Designation: Senior Environmental Engineer
Date: 2025.07.08 14:25:34 IST
Reason: Approved

REGIONAL OFFICE, RAJASTHAN STATE POLLUTION CONTROL BOARD, BALOTRA					
Inspection Report					
1	a. Name of the Industry:	Vedanta (Cairn Oil and Gas) Limited			
	b. Address of the Industry:	Address for	Village	Tehsil	District
		STP of Operation Base	Nagana	Baytu	Barmer
	c. E-mail:	**RJON.EnvironmentManagerMPT@cairnindia.com**			
	d. Fax:	02982 – 225463			
	e. Mobile:	9773380157			
	f. Telephone:	02982-660113			
2	Date of inspection:	01.07.2025			
3	Name and designation of the person contacted:	Sh. Gaurav Yadav, Environment Manager.			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Production of Hydrocarbons			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	At the time of inspection, STP was found operational.			
9	Capacity of STP:	300 KLD			
10	Status of Consent under the water Act,1974	Consent to Operate under Water Act, 1974 was accorded vide letter dated 05/11/2024.			
11	Status of Consent under the Air Act,1981	Same as above.			
13	Metering arrangement at inlet of STP and status of logbook:	Water meter for measuring the quantity of effluent reached STP (Inlet) for treatment has been provided. Logbook – Maintained.			
14	Metering arrangement at outlet of STP and status of logbook	Water meter for measuring the quantity of effluent treated by STP (Outlet) has been provided. Logbook – Maintained			
15	Intake capacity	143 KLD.			
16	If any bypassing arrangement at STP, detailed thereof	No effluent bypassing arrangement has been made.			
17	Details of water sample collected during inspection	Sample can not be collected as sufficient quantity of wastewater was not available for STP to operate. Representative stated that sampling may be done after 15 days when it have full fledge water quantity.			
18	Details of DG, if any	3 DG Sets (Each of 1010 KVA capacity)			
19	STP unit operation/process	The flow process is at Fig.-A			
20	Utilization of treated waste water, if any and ultimate disposal point.	Treated water is used for landscaping, gardening, flushing etc.			

21	Other relevant information regarding STP: - a) STP of 300 KLD capacity is completed at the site and all the necessary machineries has been set-up successfully. b) Proponent has completed trial of STP with both the raw water and waste water. c) STP was found operational at the time of inspection. Detailed flow chart is there at Fig. – A. However, to run the STP smoothly the required quantity of waste water was not available. Stabilization of STP is under process. d) Samples could not be collected as full quantity of waste water was not available for treatment during inspection.	
22	Specific non-compliance observed during inspection	-

Submitted for further necessary action please.

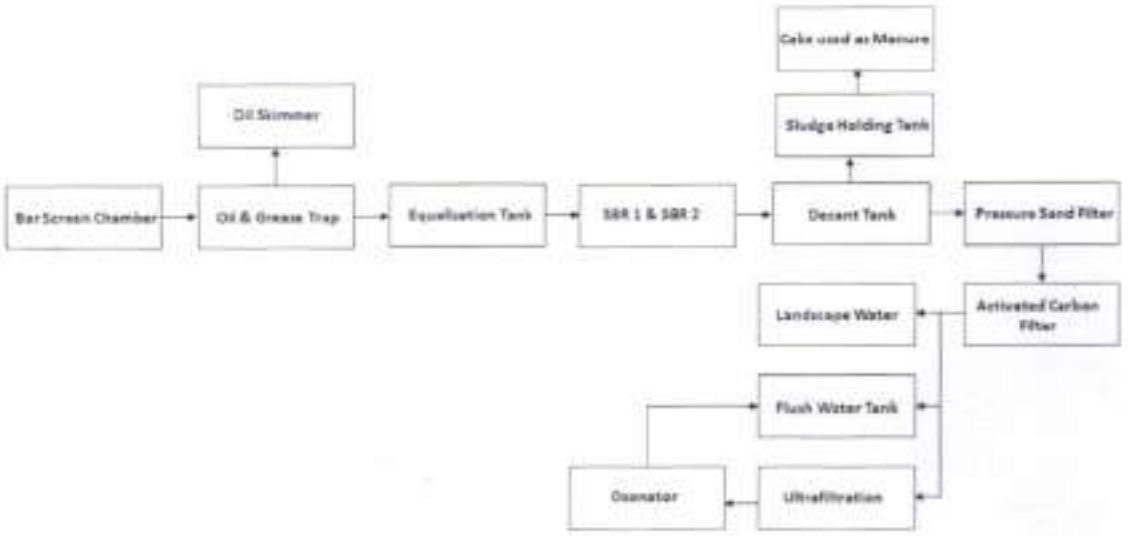
Mahendra Dewasi JEE	Nidesh Kala JEE	Dalpat Singh JSO	Yashpal Meena SSO

R.O.'s Recommendations:

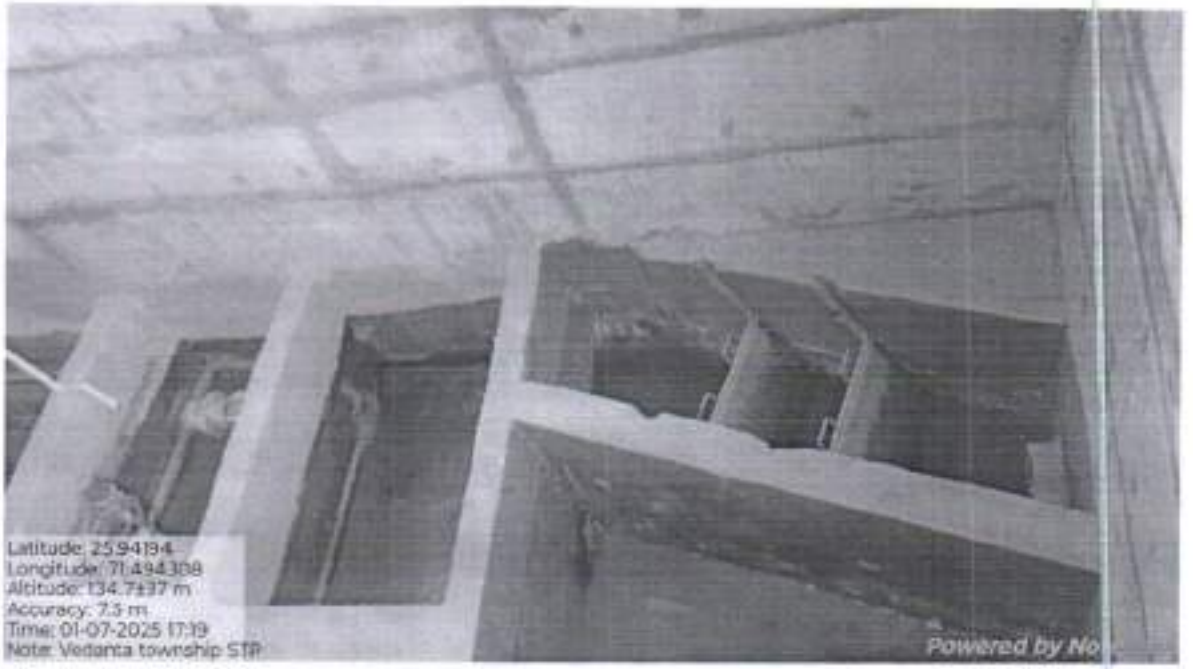
As unit has installed STP & was found operational during inspection, bank guarantee deposited by the industry may be returned.

(Deepak Tanwar)
SEE & Regional Officer

Fig.-A
Flow Chart of STP 300 KLD

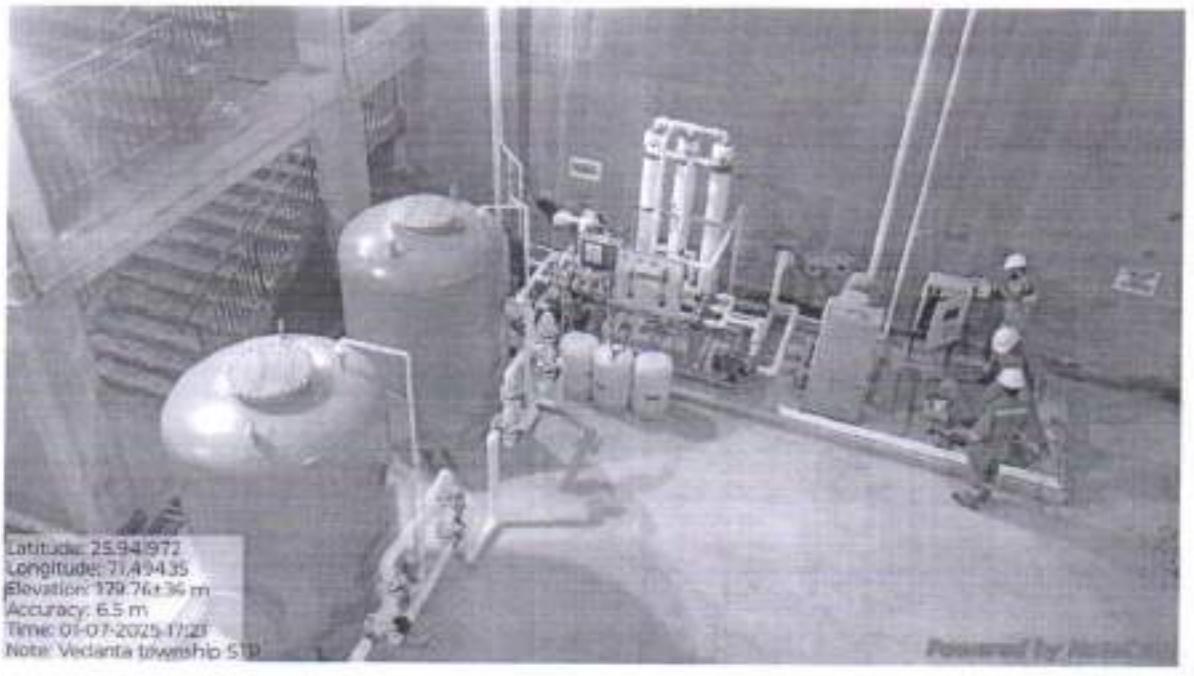


Photgraphs taken during inspection:


Latitude: 25.94194
Longitude: 71.494308
Altitude: 134.7±37 m
Accuracy: 7.5 m
Time: 01-07-2025 17:19
Note: Vedanta township STP
Powered by No


Latitude: 25.941931
Longitude: 71.494318
Elevation: 179.76±27 m
Accuracy: 6.5 m
Time: 01-07-2025 17:20
Note: Vedanta township STP
Powered by NoteCam


Latitude: 25.942028
Longitude: 71.494321
Elevation: 179.76±31 m
Accuracy: 6.0 m
Time: 01-07-2025 17:25
Note: Vedanta township STP
Powered by NoteCam


Latitude: 25.94197
Longitude: 71.49435
Elevation: 179.76±36 m
Accuracy: 6.5 m
Time: 01-07-2025 17:27
Note: Vedanta township STP

436
19/9

324

Regional Office

Rajasthan State Pollution Control Board

Jasol Fanta, Oppo. JVVNL Office, Balotra Distt. Barmer
Phone: 02988-225923 Email ID - ro.balotara@gmail.com

RPCB/RO/Balotra/Barmer/Crain India/ 695 Date: 27-08-2018

Group Incharge (HOP)
RSPCB,
Jaipur.

Sub: - Inspection report of **M/s Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Well Pad-14 (PML1/Mangala/Well Pad-14), Village – Jogasar, Kuan, Tehsil & District – Barmer.**

Ref:- Your letter no. F(O&G-335) RPCB/HOP/524 on dated **29th June, 2018.**

Sir,

With reference to above, **M/s Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Well Pad-14 (PML1/Mangala/Well Pad-14), Village – Jogasar, Kuan, Tehsil & District – Barmer.** Was inspected by Board officials on dated on 3rd August, 2018 I/R sent to you for information to necessary action please.

Yours Faithfully,

(Jagdish Singh)
RO, RSPCB, Balotra

Encl.:- As above.

Sr. No. 156

HOP

14515
17/09/18

17/9

19.9.18

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

1	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Well Pad-14 (PML1/Mangala/Well Pad-14)			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		MWP-14	Jogasar, Kuan	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	03 August, 2018			
3	Name and designation of the person contacted:	Dr. B. R. Jat, DGM, Environment			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Hydrocarbon Production Well Pad			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Enclosed			
10	Status of consent under the Water Act, 1974:	CTO Valid till 31/12/2018 (CTO Renewal applied on 07/06/2018 with Unit Id 24118 and Application Id 215785)			
11	Status of consent under Air Act, 1981:	CTO Valid till 31/12/2018 (CTO Renewal applied on 07/06/2018 with Unit Id 24118 and Application Id 215785)			
12	Status of authorization under HWM Rules	HWA Valid till 31/10/2021.			
13	Name of raw materials with quantity (per day or month or annum)	-			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	11,500 BOPD Barrels of Oil per Day 2.5.00 Million Metric Standard Cubic Feet Gas per Day As per CTO application submitted			
15	Water related:				
1.	Source of Water	Water sourced from MPT through pipeline (Saline Ground Water from Thumbli Aquifer treated at MPT RO plant for well pad operations)			
2	Status of metering arrangement on	Flow meter available			

		Sources	
	3	Meter reading (if meter provided)	**Meter readings records available. Meter reading is 000001 as on 03.08.2018**
	4	Metering arrangement for water consumption in various process/ use	**Flow meter available**
	5	Water consumption process/ purpose wise	**Domestic and Intermittently for other operational activities**
	6	Status of log book of water drawl and consumption	**Log book maintained**
16		Waste water generation (Stream wise) per day	**All the waste water generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic waste water is treated through onsite septic tank followed soak pit.**
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	**Well Maintenance: Disposal at HDPE Lined Concrete Evaporation Pond for Natural Evaporation within the Well Pad**
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **Septic Tank followed by Soak Pit**		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Flow Sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
		Discharge of waste water (per day)	Intermittently maximum 4 KLD waste water treated in solar evaporation pond
20		Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	No surface discharge. Intermittent generated waste water discharged in Solar pond for Evaporation and Domestic waste water in septic tank followed by soak pit
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-

24	Whether industry is a member of CETP? Provide details.	-
25	CETP inlet norms	-
26	Method of conveyance of waste water from industry to CETP:	-
27	Adequacy of the CETP for total effluent reaching CETP	-
28	Details of air pollution:	

A — Process Stacks:

Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
1	-	-	-	-	-	-
i)	Status of energy meter & hour meter	-				
ii)	Status of log book of operation and meter	-				

B — Flue gases stacks

Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure for monitoring facility provided or not?
	Mobile Flare	**Natural Gas**		**30 m**		**Only used during Drilling and Well Services (Currently not available in site).**	
i)	Status of energy meter & hour meter	Not Applicable.					
ii)	Status of log book of operation and meter	Not Applicable.					

C — Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.

S. No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
i)	Status of energy meter & hour meter	Not Applicable			
ii)	Status of log book of operation and meter	Not Applicable			

D — Details of incinerator: Not Applicable

A	For Liquid For Hazardous Waste (Solid)	

		If Combined				
	B	Status of operation at the time of Inspection:				
	C	Temperature °C	Primary Chamber			
			Secondary Chamber			
	i)	Status of energy meter & hour meter				
	ii)	Status of log book of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	4 X 1500 KVA ✓	Provided	30 mtrs	Adequate	To be used only during drilling activities
	2	3 X 500 KVA ✓	Provided	5 mtrs	Adequate	
	3	2 X 440 KVA ✓	Provided	4.5 mtrs	Adequate	
	4	3 X 62 KVA ✓	Provided	1.5 mtrs	Adequate	
	5	1 X 380 KVA ✓	Provided	4.5 mtrs	Adequate	Currently not available at site. Sent for offsite maintenance
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	Details about Hazardous Waste Management:				
	Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage		
	1	Drill cuttings excluding those from waste based mud	2.1	925.00 MT/WELL (DRILLING PHASE) Captive SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	3.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing in cement kiln/Reprocess		
	4	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	4.00 MT/WELL (DRILLING PHASE) SLF/Sale to authorized recycler		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	4.00 TPA (EXTRACTION PHASE) SLF/Sale to authorized recycler		
	6	Used or spent oil	5.1	1.00 TPA (EXTRACTION PHASE) Sales to Registered Recycler/ Reprocess		
	7	Used or spent oil	5.1	4.00 MT/WELL(DRILLING PHASE) Sales to Registered Recycler/ Reprocess		

	8	Wastes or residues containing oil	5.2	5.00 MT/WELL(DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
	9	Wastes or residues containing oil	5.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
		Form IV Copy enclosed		
32		Verification and irregularities/ gap found in manifests	**No.**	
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable		
34	Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**			
35	A	Status of logbook for hazardous waste:	**Form 3 is being maintained**	
	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**	
	C	Status of display board at the storage area	**All waste storage areas are well marked and board displayed**	
36		Electric service number	**Captive Power Generation at MPT and supplied to all well pads through Over Head Line**	
37		Water service number	**Water sourced from MPT through pipeline**	
38		Other relevant information regarding the industry, including complaints	**No complaints received against unit at RSPCB Balotra**	
39		Details of water/ waste water sample collected during inspection	-	
40		Details of air /emission sample collected during inspection	-	
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**	
42	Cess verification			
	A	Consumption of water in different categories for cess assessment	**Water consumption is being reported in monthly water cess report for MBA**	
		Category- I		
		Category - II		
		Category - III		
		Category - III		
		Category-IV		
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-	
	C	Details of the deposition of cess	**Advance Water Cess for till June'17 is submitted**	

43	Specific non- compliances if any, observed during inspection:	-

Date: Place: Name: Pawan Chouhan UEE, RSPCB, Balotra	Name: V.S. Parihar Scientific Officer, Balotra

Recommendations:

Looking toward about details and comments the consent to Operate may be consider favorably if remitted fees is adequate.

CS

(J. Singh)
Regional Officer

85

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Regional Office
Rajasthan State Pollution Control Board
Jasol Circle, Opposite J.V.V.N.L. Office, Balotra Distt. Barmer
Website www.rpcb.nic.in

RPCB/RO/Balotra/Cairn India /1224

Date: 21/11/2017

Sr. Env. Engineer (HOP)
R.S.P.C.B.
Jaipur

Sub:- Inspection Report of M/s **Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Field(Well Pad-07) (PML1/Mangala/Well Pad-07), Jogasar Kuwan-Nagana, Tehsil - Bayatu, Distt - Barmer.**

Ref:- Your letter no.F(O& G-335)RPCB/HOP/525 dated 07.11.2017.

Sir,

With reference to above, M/s **Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Field(Well Pad-07) (PML1/Mangala/Well Pad-07), Jogasar Kuwan-Nagana, Tehsil - Bayatu, Distt - Barmer**, by Board office officials Inspection report sent to you for information necessary action please.

Your Faithfully

(Jagdish Singh)
Regional Officer
RPCB, Balotra

Encl:- As above
7/p-135

HOP

18888
05/12/17

06.12.17

Unit ID 09893
Ap ID - 16403

RAJASTHAN STATE POLLUTION CONTROL BOARD

M8

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Field(Well Pad-07) (PML1/Mangala/Well Pad-07)			
b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
	MWP 07	Jogasar Kuwan-Nagana	Baytau	Barmer
c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
d. Fax:	02982 – 225463			
e. Mobile:	8003996696			
f. Telephone:	02982-660113			
Date of inspection:	~~13.10.2017~~ 15.11.17			
Name and designation of the person contacted:	Dr. Bhoma Ram Jat, Senior Manager Environment			
Type of industry:	Oil & Gas - Exploration & Production			
Nature of industry:	Processing of Hydrocarbon			
Size of industry: Large/ Medium/ Small	Large			
Category of industry: Red/ Orange/ Green/ Others	Red			
Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
List of partners/ directors/ proprietor with addresses:	Enclosed			
Status of consent under the Water Act, 1974:	CTO Valid till 30/ 06/2017			
Status of consent under Air Act, 1981:	NA			
Status of authorization under HWM Rules	HWA Valid till 31/10/2021			
Name of raw materials with quantity (per day or month or annum)	-			
Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Approx 13,000.00BOPD Barrels of Oil per Day Approx 2.60 Million Metric Standard Cubic Feet Gas per Day			
Water related:				
Source of Water	Water sourced from MPT for well pad operations			
Status of metering arrangement on Sources	Yes			
Meter reading (if meter provided)	Meter readings records available. Meter Reading is 999983 as on 15.11.2017			
Metering arrangement for water consumption in various process/ use	Flow meter provided			
Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities			
Status of log book of water drawl and consumption	-			

Waste water generation (Stream wise) per day	All the waste water generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of ~1700 m^3 Domestic waste water is treated through onsite septic tank followed soak pit.
Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Well Maintenance: Disposal at HDPE Lined Concrete Evaporation Pond for Natural Evaporation within the Well Pad

Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): **Septic Tank followed by Soak Pit**

Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Flow Sheet):	-
Operational status of ETP units at the time of inspection:	-
Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
Discharge of waste water (per day)	Intermittently maximum 4 KLD waste water treated in solar evaporation pond
Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	No surface discharge. Intermittent generated waste water discharged in Solar pond for Evaporation and Domestic waste water in septic tank followed by soak pit
Recycle of treated effluent (if any)	-
Details of recycling arrangements	-
Metering arrangements for recycling? If yes, then meter reading	-
Whether industry is a member of CETP? Provide details.	-
CETP inlet norms	-
Method of conveyance of waste water from industry to CETP:	-
Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

Process Stacks:

Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-	-

Status of energy meter & hour meter	-
Status of log book of operation and meter	-

Flue gases stacks

Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
-						

Status of energy meter & hour meter	Not Applicable.
Status of log book of operation and meter	Not Applicable.

Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM

Status of energy meter & hour meter	Not Applicable
Status of log book of operation and meter	Not Applicable

Details of incinerator: **Not Applicable**

For Liquid For Hazardous Waste (Solid) If Combined	For Hazardous Solid Waste only	
Status of operation at the time of inspection:		
Temperature °C	Primary Chamber	
	Secondary Chamber	
Status of energy meter & hour meter		
Status of log book of operation and meter		

Details of D. G. Sets -

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-

Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

Fly ash management with all details, if applicable: **Not Applicable.**

Details about Hazardous Waste Management:

Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
Drill cuttings excluding those from waste based mud	2.1	925.00 MT/WELL (DRILLING PHASE) Captive SLF / Co processing in cement kiln
Sludge containing oil	2.2	3.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler

Sludge containing oil	2.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
Drilling mud containing oil	2.3	475.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing in cement kiln/Reprocess
Sludge and filters contaminated with oil	3.3	3.00 MT/WELL (DRILLING PHASE) SLF/Co prpcessing/Incineration/Sales to registered recyclers
Sludge and filters contaminated with oil	3.3	5.00 TPA (EXTRACTION PHASE) SLF/Co processing/Incineration/Sales to registered recyclers
Empty barrels/ containers/ liners contaminated with hazardous chemicals wastes	33.1	4.00 MT/WELL (DRILLING PHASE) SLF/Sale to authorized recycler
Empty barrels/ containers/ liners contaminated with hazardous chemicals wastes	33.1	4.00 TPA (EXTRACTION PHASE) SLF/Sale to authorized recycler
Contaminated cotton rags or other cleaning materials	33.2	5.00 MT/WELL (DRILLING PHASE) MPT incinerator/Co processing at cement/power
Contaminated cotton rags or other cleaning materials	33.2	5.00 TPA (EXTRACTION PHASE) MPT incinerator/Co processing at cement/power
Concentration or evaporation residues	37.3	1.00 MT/WELL(DRILLING PHASE) CAPTIVE SLF
Concentration or evaporation residues	37.3	50.00 TPA (EXTRACTION PHASE) CAPTIVE SLF
Used or spent oil	5.1	1.00 TPA (EXTRACTION PHASE) Sales to Registered Recycler/ Reprocess
Used or spent oil	5.1	4.00 MT/WELL(DRILLING PHASE) Sales to Registered Recycler/ Reprocess
Wastes or residues containing oil	5.2	5.00 MT/WELL(DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
Wastes or residues containing oil	5.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
Form IV Copy enclosed		
Verification and irregularities/ gap found in manifests	**No irregularities observed.**	
Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable		
Whether industry is a member of TSDF site or not?	**Cairn has its own captive TSDF facility at MPT**	
A Status of logbook for hazardous waste:	**Form 3 is being maintained**	
B Status of display board of size 4' x 6' at the main gate	**Board displayed at site**	
C Status of display board at the storage area	**All waste storage areas are well marked and board displayed**	
Electric service number	**Captive Power Generation at MPT and supplied to all well pads through Over Head Line**	

	Water service number	Water sourced from MPT through pipeline
38	Other relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Balotra
39	Details of water/ waste water sample collected during inspection	-
40	Details of air /emission sample collected during inspection	-
41	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied
42	Cess verification	
A	Consumption of water in different categories for cess assessment	Water consumption is being reported in monthly water cess report for MBA
	Category- I	
	Category - II	
	Category - III	
	Category - III	
	Category-IV	
B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
C	Details of the deposition of cess	Advance Water Cess for till June'17 is submitted
	Specific non compliances if any, observed during inspection:	-

(V.S.Parihar)
S.O., RSPCB, Balotra

Recommendations: looking towards above facts CTE/ CTO/ Authorization application pending may be considered favorably for the grant of Consent provided the deposite is adequate as the Rules.

Counter Signature

Regional Officer,
RSPCB, Balotra

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Field(Well Pad-04) (PML1/Mangala/Well Pad-04)			
b. Address of the Industry:	Address for MWP 04	Village JogasarKuwan	Taluka/ Tehsil Bayatu	District Barmer
c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
d. Fax:	02982 – 225463			
e. Mobile:	8003996696			
f. Telephone:	02982-660113			
Date of inspection:	~~13.10.2017~~ 15.11.17			
Name and designation of the person contacted:	Dr. Bhoma Ram Jat, Senior Manager Environment			
Type of industry:	Oil & Gas - Exploration & Production			
Nature of industry:	Processing of Hydrocarbon			
Size of industry: Large/ Medium/ Small	Large			
Category of industry: Red/ Orange/ Green/ Others	Red			
Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
List of partners/ directors/ proprietor with addresses:	Enclosed			
Status of consent under the Water Act, 1974:	CTO Valid till 30/ 06/2017			
Status of consent under Air Act, 1981:	NA			
Status of authorization under HWM Rules	HWA Valid till 31/10/2021			
Name of raw materials with quantity (per day or month or annum)	-			
Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Approx6,000.00BOPD Barrels of Oil per Day Approx1.20 Million Metric Standard Cubic Feet Gas per Day			
Water related:				
1 Source of Water	Water sourced from MPT for well pad operations			
2 Status of metering arrangement on Sources	Yes			
3 Meter reading (if meter provided)	Meter reading records available. Meter reading is 000031 as on 15.11.17			
4 Metering arrangement for water consumption in various process/ use	Flow meter available			
5 Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities			
6 Status of log book of water drawl and consumption	-			

Waste water generation (Stream wise) per day	All the waste water generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic waste water is treated through onsite septic tank followed soak pit.
Whether the industry is connected with CETP or has provided Effluent treatment Plant or treatment not required?	Well Maintenance: Disposal at HDPE Lined Concrete Evaporation Pond for Natural Evaporation within the Well Pad

Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **Septic Tank followed by Soak Pit**

A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Flow Sheet):	-
B	Operational status of ETP units at the time of inspection:	-
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
	Discharge of waste water (per day)	Intermittently maximum 4 KLD waste water treated in solar evaporation pond
29	Point of discharge/disposal of waste water and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharged in Solar pond for Evaporation and Domestic waste water in septic tank followed by soak pit
31	Recycle of treated effluent (if any)	-
32	Details of recycling arrangements	-
33	Metering arrangements for recycling? If yes, then meter reading	-
34	Whether industry is a member of CETP? Provide details.	-
35	CETP inlet norms	-
	Method of conveyance of waste water from industry to CETP:	-
37	Adequacy of the CETP for total effluent reaching CETP	-
38	Details of air pollution:	
A	**Process Stacks:**	

Sr. No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
1						
i)	Status of energy meter & hour meter					
ii)	Status of log book of operation and meter					

Flue gases stacks attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?

Status of energy meter & hour meter	Not Applicable.
Status of log book of operation and meter	Not Applicable.

Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM

Status of energy meter & hour meter	Not Applicable
Status of log book of operation and meter	Not Applicable

Details of incinerator: **Not Applicable**

For Liquid For Hazardous Waste (Solid) If Combined		For Hazardous Solid Waste only
Status of operation at the time of Inspection:		
Temperature °C	Primary Chamber Secondary Chamber	
Status of energy meter & hour meter		
Status of log book of operation and meter		

Details of D. G. Sets

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-

Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

Fly ash management with all details, if applicable: **Not Applicable.**

A Details about Hazardous Waste Management:

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste based mud	2.1	500.00 MT/WELL (DRILLING PHASE) Captive SLF / Co processing in cement kiln
2	Sludge containing oil	2.2	3.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler

	Sludge containing oil	2.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
	Drilling mud containing oil	2.3	100.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing in cement kiln/Reprocess
	Sludge and filters contaminated with oil	3.3	3.00 MT/WELL (DRILLING PHASE) SLF/Co processing/Incineration/Sales to registered recyclers
	Sludge and filters contaminated with oil	3.3	5.00 TPA (EXTRACTION PHASE) SLF/Co processing/Incineration/Sales to registered recyclers
	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	33.1	4.00 MT/WELL (DRILLING PHASE) SLF/Sale to authorized recycler
	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	33.1	4.00 TPA (EXTRACTION PHASE) SLF/Sale to authorized recycler
	Contaminated cotton rags or other cleaning materials	33.2	5.00 MT/WELL (DRILLING PHASE) MPT incinerator/Co processing at cement/power
	Contaminated cotton rags or other cleaningmaterials	33.2	5.00 TPA (EXTRACTION PHASE) MPT incinerator/Co processing at cement/power
	Concentration or evaporation residues	37.3	1.00 MT/WELL(DRILLING PHASE) CAPTIVE SLF
	Concentration or evaporation residues	37.3	50.00 TPA (EXTRACTION PHASE) CAPTIVE SLF
	Used or spent oil	5.1	1.00 TPA (EXTRACTION PHASE) Sales to RegisteredRecycler/ Reprocess
	Used or spent oil	5.1	4.00 MT/WELL(DRILLING PHASE) Sales to RegisteredRecycler/ Reprocess
	Wastes or residues containing oil	5.2	5.00 MT/WELL(DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
	Wastes or residues containing oil	5.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
	Form IV Copy enclosed		
	Verification and irregularities/ gap found in manifests	**No irregularities observed.**	
	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable		
	Whether industry is a member of TSDF site or not?	**Cairn has its own captive TSDF facility at MPT**	
A	Status of logbook for hazardous waste:	**Form 3 is being maintained**	
B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**	
C	Status of display board at the storage area	**All waste storage areas are well marked and board displayed**	
	Electric service number	**Captive Power Generation at MPT and supplied to all well pads through Over Head Line**	
	Water service number	**Water sourced from MPT through pipeline**	

Any relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Balotra
Details of water/ waste water sample collected during inspection	-
Details of air /emission sample collected during inspection	-
Compliance of CTE/ CTO/ Authorization / Legislation / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied
Classification	
Consumption of water in different categories for cess assessment Category- I Category - II Category - III Category - III Category-IV	Water consumption is being reported in monthly water cess report for MBA
Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
Details of the deposition of cess	Advance Water Cess for till June'17 is submitted
Specific non- compliances if any, observed during inspection:	-

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(V.S.Parihar)
S.O., RSPCB, Balotra

Recommendations: Looking towards above facts CTE/CTO/Authorization may be considered favourably for grant of Consent provided fee deposite is adequate as per Rules.

Counter Signature

Regional Officer,
RSPCB, Balotra

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

a. Name of the industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction from Mangala Well Pad -13 (PML 1/Mangala/Well Pad-13)			
b. Address of the industry:	Address for MWP-13	Village Jogasar Kuwan	Taluka/ Tehsil Baytau	District Barmer
c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
d. Fax	02982 – 225463			
e. Mobile:	8003996696			
f. Telephone	02982-660113			
Date of inspection:	19th January 2022			
Name and designation of the person contacted:	Jayesh Gehlot, Environment manager			
Type of industry:	Oil & Gas - Exploration & Production			
Nature of industry:	Production of Hydrocarbons			
Size of industry: Large/ Medium/ Small	Large			
Category of industry: Red/ Orange/ Green/ Others	Red			
Status of Operation: operational/ non- operational/ closed/ any other- If non- operational- reason and period of non- operation.	Operational			
List of partners/ directors/ proprietor with addresses:	-			
Status of consent under the Water Act, 1974:	CTO Valid till 31.03.2022.CTO Renewal cum expansion application with Unit ID 24118 & application No.294449 submitted on 30.11.2021			
Status of consent under Air Act, 1981:	CTO Valid till 31.03.2022.CTO Renewal cum expansion application with Unit ID 24118 & application No. 294449 submitted on 30.11.2021			
Status of authorization under HWM Rules	HWA vide authorization No. RPCB/HWM/2018-2019/HSW/HSW/361. valid till 30/11/2023.			
Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
Name of product(s) and by-products manufactured with quantity (per day or month or annum)	As per Existing CTO Crude Oil: 15000 BOPD Natural Gas: 4.4MMSCFD			

15		Water related:	
	1.	Source of Water	Water sourced from CGWA authorized Ground Water Source
	2	Status of metering arrangement on Sources	**Digital meters – records are maintained in form of digital data**
	3	Meter reading (if meter provided)	Meter readings records available.
	4	Metering arrangement for water consumption in various process/ use	Meter readings records available
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
	6	Status of logbook of water drawl and consumption	Logbook maintained
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning maintenance of the well are being collected & solar evaporated HDPE lined pit with the capacity of 1700 m^3 Solar evapo (8m3/day) is installed for enhance solar evaporation at Well Domestic wastewater is treated through onsite septic tank soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-
18		In case Effluent Treatment Plant (ETP) provided, details of same (in case of multiple ETP's or STP's, please provide details for all):	
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
20		Discharge of wastewater (per day)	-
21		Point of discharge/disposal of wastewater and ultimate receiving body. adequacy of disposal:	-
22		Recycle of treated effluent (if any)	-
23		Details of recycling arrangements	-
24		Metering arrangements for recycling? If yes, then meter reading	-
		Whether industry is a member of CETP? Provide details.	-

CETP inlet norms	-
Method of conveyance of wastewater from industry to CETP:	-
Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

Process Stacks:

Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-	-

Status of energy meter & hour meter	-
Status of logbook of operation and meter	-

Flue gases stacks

Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
Mobile Flare	**N. Gas**	-	**Provided**	**Stack height**	-	**Used during drilling and well maintenance**

Status of energy meter & hour meter	Not Applicable.
Status of logbook of operation and meter	Not Applicable.

Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
i	Status of energy meter & hour meter	Not Applicable			
ii	Status of logbook of operation and meter	Not Applicable			

D		Details of Incinerator: **Not Applicable**				
	A	For Liquid For Hazardous Waste (Solid) If Combined				
	B	Status of operation at the time of Inspection:				
	C	Temperature °C	Primary Chamber Secondary Chamber			
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and sale infrastructural monitoring facility provided or not?
	1	2 X 1850 KVA	Provided	30 mtrs	Adequate	Used only during drilling well maintenance ac... During inspection drilling activities ... carrying out at well pad
	2	2 X 440KVA	Provided	4.5 mtrs	Adequate	
	3	3X 500 KVA	Provided	5 mtrs	Adequate	
	4	3 X 62 KVA	Provided	1.5 mtrs	Adequate	
	5	4 X 1500 KVA	Provided	30 mtrs	Adequate	
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul odor.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	**Details about Hazardous Waste Management:**				
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Registered		
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8.00 MT/WELL/Annum SLF/Sale to authorized recycler		

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Contaminated cotton rags and other cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered Recycler
Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess
Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum Captive SLF/Co processing/Incineration/Registered Recyclers
Concentration or evaporation residues	37.3	50 MT/Well/Annum Captive SLF

Form IV Copy enclosed

Verification and irregularities/ gap found in manifests	No irregularities observed.
Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-

Whether industry is a member of TSDF site or not? Cairn has its own captive TSDF facility at MPT

4	Status of logbook for hazardous waste:	Form 3 is being maintained
5	Status of display board of size 4' x 6' at the main gate	Board displayed at site
6	Status of display board at the storage area	All waste storage areas are well marked, and board displayed
	Electric service number	Captive Power Generation at MPT and supplied to Mangala Well Pads through Over Headline
	Water service number	Water sourced from MPT through pipeline (Water sourced from authorized ground water source)
	Other relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Baiotra
	Details of water/ waste water sample collected during inspection	-
	Details of air /emission sample collected during inspection	-
	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied

Cess verification

4	Consumption of water in different categories for cess assessment	Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)
	Category- I	
	Category - II	
	Category - III	
	Category - III	
	Category-IV	

	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Specific non- compliances if any, observed during inspection:	-

Recommendation:

In light of aforementioned facts, industry's application dated 30/11/2021 (application id: 294449, unit id: 241181) for CTO may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

C/S

Rajkumar Sehra
Regional Officer

Jitendra Das
(JEE)

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Unit 38-09394
App 38-166395
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RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Field(Well Pad-13) (PML1/Mangala/Well Pad-13)			
	b. Address of the Industry:	Address for MWP13	Village JogasarKuwan	Taluka/ Tehsil Baltu	District Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
	Date of inspection:	~~13.10.2017~~ 15-11-17			
	Name and designation of the person contacted:	Dr. Bhoma Ram Jat, Senior Manager Environment			
	Type of industry:	Oil & Gas - Exploration & Production			
	Nature of industry:	Processing of Hydrocarbon			
	Size of industry: Large/ Medium/ Small	Large			
	Category of industry: Red/ Orange/ Green/ Others	Red			
	Status of Operation: operational/ non- operational/ closed/ any other if non- operational- reason and period of non- operation,	Operational			
	List of partners/ directors/ proprietor with addresses:	Enclosed			
	Status of consent under the Water Act, 1974:	CTO Valid till 31/ 03/2017			
	Status of consent under Air Act, 1981:	CTO Valid till 31/ 03/2017			
	Status of authorization under HWM Rules	HWA Valid till 30/11/2018			
	Name of raw materials with quantity (per day or month or annum)	-			
	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Approx6,500.00BOPD Barrels of Oil per Day Approx1.10 Million Metric Standard Cubic Feet Gas per Day			
	Water related:				
1	Source of Water	Water sourced from MPT for well pad operations			
2	Status of metering arrangement on Sources	Yes			
3	Meter reading (if meter provided)	Meter readings records available. Meter reading is 000081 as on 15.11.2017			
4	Metering arrangement for water consumption in various process/ use	Flow meter available			
5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities			
6	Status of log book of water drawl and consumption	-			

	Waste water generation (Stream wise) per day	**All the waste water generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic waste water is treated through onsite septic tank followed soak pit.**
	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	**Well Maintenance: Disposal at HDPE Lined Concrete Evaporation Pond for Natural Evaporation within the Well Pad**

In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **Septic Tank followed by Soak Pit**

A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Flow Sheet):	-
B	Operational status of ETP units at the time of inspection:	-
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
	Discharge of waste water (per day)	Intermittently maximum 4 KLD waste water treated in solar evaporation pond
	Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	No surface discharge. Intermittent generated waste water discharged in Solar pond for Evaporation and Domestic waste water in septic tank followed by soak pit
	Recycle of treated effluent (if any)	-
	Details of recycling arrangements	-
	Metering arrangements for recycling? If yes, then meter reading	-
	Whether industry is a member of CETP? Provide details.	-
	CETP inlet norms	-
	Method of conveyance of waste water from industry to CETP:	-
	Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

Process Stacks:

Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	-	-	-	-	-	-

	Status of energy meter & hour meter	-
	Status of log book of operation and meter	-

Flue gases stacks

Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
-						

Status of energy meter & hour meter	Not Applicable.
Status of log book of operation and meter	Not Applicable.

Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM

Status of energy meter & hour meter	Not Applicable
Status of log book of operation and meter	Not Applicable

Details of incinerator: **Not Applicable**

For Liquid For Hazardous Waste (Solid) If Combined	For Hazardous Solid Waste only	
Status of operation at the time of inspection:		
Temperature °C	Primary Chamber Secondary Chamber	
Status of energy meter & hour meter		
Status of log book of operation and meter		

Details of D. G. Sets -

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-

Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

Fly ash management with all details, if applicable: **Not Applicable.**

Details about Hazardous Waste Management:

Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
Drill Cuttings Containing Oil	2.1	30.00 TON/WELL Captive Incineration
Drilling Mud and Other Drilling Waste	2.3	252.00 M^3/WELL DRILLING PHASE Captive SLF
Spent/Used Oil	5.1	02.00 TON/WELL Sale to registered recycler
Spent/Used Oil	5.1	04.00 TON/WELL Sale to registered recycler

Waste/residue containing oil	5.2	50.00 TON/WELL Approved Incineration

Form IV Copy enclosed

Verification and irregularities/ gap found in manifests	**No irregularities observed.**
Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	

Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**

Status of logbook for hazardous waste:	**Form 3 is being maintained**
Status of display board of size 4' x 6' at the main gate	**Board displayed at site**
Status of display board at the storage area	**All waste storage areas are well marked and board displayed**
Electric service number	**Captive Power Generation at MPT and supplied to all well pads through Over Head Line**
Water service number	**Water sourced from MPT through pipeline**
Other relevant information regarding the industry, including complaints	**No complaints received against unit at RSPCB Balotra**
Details of water/ waste water sample collected during inspection	-
Details of air /emission sample collected during inspection	-
Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**
Cess verification	
A Consumption of water in different categories for cess assessment	**Water consumption is being reported in monthly water cess report for MBA**
Category- I	
Category - II	
Category - III	
Category - III	
Category-IV	
B Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
C Details of the deposition of cess	**Advance Water Cess for till June'17 is submitted**
D Specific non- compliances if any, observed during inspection:	-

(V.S.Parihar)
S.O., RSPCB, Balotra

Recommendations: looking towards above facts CTE/CTO / Authorization may be Considered [illegible] for the grant of Consent provided fee deposit is adequate as per [illegible] Rules.

Counter Signature

Regional Officer,
RSPCB, Balotra

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

1	a. Name of the industry:	**Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction from Mangala Well Pad -17(PML 1/Mangala/Well Pad 17)**			
	b. Address of the industry:	**Address for**	**Village**	**Taluka/ Tehsil**	**District**
		MWP-17	Sar ka Per Kawas	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	**02982 – 225463**			
	e. Mobile:	**8003996696**			
	f. Telephone:	**02982-660113**			
2	Date of inspection:	**19th January 2022**			
3	Name and designation of the person contacted:	**Jayesh Gehlot, Environment manager**			
4	Type of industry:	**Oil & Gas - Exploration & Production**			
5	Nature of industry:	**Production of Hydrocarbons**			
6	Size of industry: Large/ Medium/ Small	**Large**			
7	Category of industry: Red/ Orange/ Green/ Others	**Red**			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	**Operational**			
9	List of partners/ directors/ proprietor with addresses:	-			
10	Status of consent under the Water Act, 1974:	**CTO Valid till 31.03.2022.CTO Renewal cum expansion** application with Unit ID 24118 & application No.294483 submitted on 30.11.2021			
11	Status of consent under Air Act, 1981:	**CTO Valid till 31.03.2022.CTO Renewal cum expansion** application with Unit ID 24118 & application No. 294483 submitted on 30.11.2021			
12	Status of authorization under HWM Rules	**HWA vide authorization No.** RPCB/HWM/2018-2019/HSW/HSW/359. valid till 30/11/2023.			
13	Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	**As per Existing CTO** **Crude Oil**: 6500 BOPD **Natural Gas**: 1.1MMSCFD	**As per Expansion CTO** **Crude Oil**: 6500 BOPD (No change) **Natural Gas**: 2.0 MMSCFD		

15		Water related:	
	1.	Source of Water	Water sourced from CGWA authorized Ground Water So
	2	Status of metering arrangement on Sources	Digital meters – records are maintained in form of digital
	3	Meter reading (if meter provided)	Meter readings records available.
	4	Metering arrangement for water consumption in various process/ use	Meter readings records available
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activi
	6	Status of logbook of water drawl and consumption	Logbook maintained
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cl maintenance of the well are being collected & solar evapo HDPE lined pit with the capacity of 1700 m^3 Solar (8m3/day) is installed for enhance solar evaporation at Domestic wastewater is treated through onsite septic ta soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-
18		In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, plea details for all):	
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
20		Discharge of wastewater (per day)	-
21		Point of discharge/disposal of wastewater and ultimate receiving body. adequacy of disposal:	
22		Recycle of treated effluent (if any)	-
23		Details of recycling arrangements	-
24		Metering arrangements for recycling? If yes, then meter reading	-
		Whether industry is a member of CETP? Provide details.	-

	CETP inlet norms	-
	Method of conveyance of wastewater from Industry to CETP:	-
	Adequacy of the CETP for total effluent reaching CETP	-
	Details of air pollution:	

Process Stacks:

Sr No.	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	-	-	-	-	-	-
i)	Status of energy meter & hour meter	-				
ii)	Status of logbook of operation and meter	-				

Flue gases stacks

Sr No.	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
1	**Mobile Flare**	**N. Gas**	-	**Provided**	**Stack height**	-	**Used during drilling and well maintenance**
i)	Status of energy meter & hour meter	Not Applicable.					
ii)	Status of logbook of operation and meter	Not Applicable.					

C Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

S.No.	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
i)	Status of energy meter & hour meter	Not Applicable			
ii)	Status of logbook of operation and meter	Not Applicable			

D Details of incinerator: **Not Applicable**

	A	For Liquid For Hazardous Waste (Solid) If Combined				
	B	Status of operation at the time of Inspection:				
	C	Temperature °C	Primary Chamber			
			Secondary Chamber			
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate safe infrastructure monitoring facility provided or not
	1	2 X 1850 KVA	Provided	30 mtrs	Adequate	Used only during well maintenance. During drilling activity carrying out at well
	2	2 X 440KVA	Provided	4.5 mtrs	Adequate	
	3	3X 500 KVA	Provided	5 mtrs	Adequate	
	4	3 X 62 KVA	Provided	1.5 mtrs	Adequate	
	5	4 X 1500 KVA	Provided	30 mtrs	Adequate	
F		Source of foul odor and measures taken to control, if any: This facility is not generating any foul odor				
30		Fly ash management with all details, if applicable: Not Applicable.				
31	A	**Details about Hazardous Waste Management:**				
	Sr No	**Source of Hazardous Waste**	**Category of Hazardous waste**	**Quantity of Hazardous Waste Generated / Storage**		
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Registered		
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8.00 MT/WELL/Annum SLF/Sale to authorized recycler		
	6	Contaminated cotton rags orother cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered		

			Recycler
7	Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess
8	Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum Captive SLF/Co processing/Incineration/Registered Recyclers
9	Concentration or evaporation residues	37.3	50 MT/Well/Annum Captive SLF
	Form IV Copy enclosed		
32	Verification and irregularities/ gap found in manifests	**No irregularities observed.**	
33	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-	
34	Whether industry is a member of TSDF site or not?	**Cairn has its own captive TSDF facility at MPT**	
35 A	Status of logbook for hazardous waste:	**Form 3 is being maintained**	
B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**	
C	Status of display board at the storage area	**All waste storage areas are well marked, and board displayed**	
36	Electric service number	**Captive Power Generation at MPT and supplied to Mangala Well Pads through Over Headline**	
37	Water service number	**Water sourced from MPT through pipeline (Water sourced from authorized ground water source)**	
38	Other relevant information regarding the industry, including complaints	**No complaints received against unit at RSPCB Balotra**	
39	Details of water/ waste water sample collected during inspection	-	
40	Details of air /emission sample collected during inspection	-	
41	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**	
42	Cess verification		
A	Consumption of water in different categories for cess assessment	**Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)**	
	Category- I		
	Category - II		
	Category - III		
	Category - III		
	Category-IV		

	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Specific non- compliances if any, observed during inspection:	-

Recommendation:

In light of aforementioned facts, industry's application dated 30/11/2021 (application id: 294483, unit id: 18[illegible]) may be considered for grant subject to fulfillment of other statutory requirements with condition [illegible] as appropriate.

Sd/-

Rajkumar Sehra
Regional Officer

ID-9893
MP 20-166310

RAJASTHAN STATE POLLUTION CONTROL BOARD

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Inspection Report (First time detailed inspection or as and when detailed inspection is required)

Name of the industry	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Field(Well Pad-17)
Address of the industry	Address for MWP 17 | Village SarKa per | Taluka/ Tehsil Barmer | District Barmer
e-mail	RJON.EnvironmentManagerMPT@cairnindia.com
Fax	02982 - 225463
Mobile	8003996696
Telephone	02982-660113
Date of inspection	~~13.06.2017~~ 15-11-17
Name and designation of the person contacted	Dr. Bhoma Ram Jat, Senior Manager Environment
Line of industry	Oil & Gas - Exploration & Production
Nature of industry	Processing of Hydrocarbon
Size of industry: Large/ Medium/ Small	Large
Category of industry: Red/ Orange/ Green/ Others	Red
Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non- operation.	Operational
List of partners/ directors/ proprietor with addresses	Enclosed
Status of consent under the Water Act, 1974:	CTO Valid till 31/ 03/2017
Status of consent under Air Act, 1981:	NA
Status of authorization under HWM Rules	HWA Valid till 30/11/2018
Name of raw materials with quantity (per day or month or annum)	-
Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Approx6,500.00BOPD Barrels of Oil per Day Approx1.10 Million Metric Standard Cubic Feet Gas per Day
Water related:	
1. Source of Water	Water sourced from MPT for well pad operations
2. Status of metering arrangement on Sources	Yes
3. Meter reading (if meter provided)	Meter readings records available. Meter reading is 000001 as on 15.11.2017
4. Metering arrangement for water consumption in various process/ use	Flow meter available
5. Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
6. Status of log book of water drawl and consumption	-

Waste water generation (Stream wise) per day	All the waste water generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic waste water is treated through onsite septic tank followed soak pit.
Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Well Maintenance: Disposal at HDPE Lined Concrete Evaporation Pond for Natural Evaporation within the Well Pad

The Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide in tabular form): **Septic Tank followed by Soak Pit**

Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Flow Sheet):	-
Operational status of ETP units at the time of inspection:	-
Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
Characteristics of waste water (as per site observations) pH, Temperature, Conductivity, Dissolved Oxygen	-
Discharge of waste water (per day)	Intermittently maximum 4 KLD waste water treated in solar evaporation pond
Point of discharge/disposal of waste water and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharged in Solar pond for Evaporation and Domestic waste water in septic tank followed by soak pit
Recycle of treated effluent (if any)	-
Details of recycling arrangements	-
Metering arrangements for recycling? If yes, then meter reading	-
Whether industry is a member of CETP? Provide details.	-
CETP inlet norms	-
Method of conveyance of waste water from industry to CETP:	-
Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

Process Stacks:

Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
		-	-	-	-	-
	Status of energy meter & hour meter	-				
	Status of log book of operation and meter	-				

Flue gases stacks

...ociated to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?

Status of energy meter & hour meter	Not Applicable.
Status of log book of operation and meter	Not Applicable.

Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM

Status of energy meter & hour meter	Not Applicable
Status of log book of operation and meter	Not Applicable

Details of incinerator: **Not Applicable**

For Liquid For Hazardous Waste (Solid) If Combined	For Hazardous Solid Waste only	
Status of operation at the time of inspection:		
Temperature °C	Primary Chamber Secondary Chamber	
Status of energy meter & hour meter		
Status of log book of operation and meter		

Details of D. G. Sets -

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-

Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

Fly ash management with all details, if applicable: **Not Applicable.**

A Details about Hazardous Waste Management:

Sl No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill Cuttings Containing Oil	2.1	30.00 TON/WELL Captive Incineration
2	Drilling Mud and Other Drilling Waste	2.3	252.00 M3/WELL DRILLING PHASE Captive SLF
3	Spent/Used Oil	5.1	04.00 TON/WELL Sale to registered recycler
4	Waste/residue containing oil	5.2	50.00 TON/WELL Approved Incineration

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...copy enclosed ...and irregularities/ gap found in manifests	No irregularities observed.
...Disposal of Spent Acid/ Solvent/ Waste Oil, if applicable	
...industry is a member of TSDF site or not?	Cairn has its own captive TSDF facility at MPT
...logbook for hazardous waste:	Form 3 is being maintained
...display board of size 4' x 6' at the main gate	Board displayed at site
...display board at the storage area	All waste storage areas are well marked and board displayed
Electric service number	Captive Power Generation at MPT and supplied to all well pads through Over Head Line
Water service number	Water sourced from MPT through pipeline
Other relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Balotra
Details of water/ waste water sample collected during inspection	-
Details of air /emission sample collected during inspection	-
Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, I.C. conditions, if applicable	Complied

...verification

	Consumption of water in different categories for cess assessment Category - I Category - II Category - III Category - III Category-IV	Water consumption is being reported in monthly water cess report for MBA
	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
C	Details of the deposition of cess	Advance Water Cess for till June'17 is submitted
	Specific non- compliances if any, observed during inspection:	-

(V.S.Parihar)
S.O., RSPCB, Balotra

...endations:
Nothing [illegible] CTE/ CTO/ Authorization pending may be [illegible] provided for deposit is adequate [illegible] favourably for the grant of Consent

Counter Signature

Regional Officer,
RSPCB, Balotra

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report (First time detailed inspection or as and when detailed inspection is required)					
1	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction from Mangala Well Pad -09(PML 1/Mangala/Well Pad-09)			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		MWP-09	Nagana	Barmer	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	19th January 2022			
3	Name and designation of the person contacted:	Jayesh Gehlot, Environment manager			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Production of Hydrocarbons			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	-			
10	Status of consent under the Water Act, 1974:	CTO Valid till 31.03.2022.CTO Renewal application with Unit ID 24118 & application No.291561 submitted on 20.11.2021			
11	Status of consent under Air Act, 1981:	CTO Valid till 31.03.2022.CTO Renewal application with Unit ID 24118 & application No. 291561 submitted on 20.11.2021			
12	Status of authorization under HWM Rules	HWA vide authorization No. RPCB/HWM/2018-2019/HSW/HSW/360. valid till 30/11/2023.			
13	Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	As per Existing CTO Crude Oil: 15000 BOPD Natural Gas: 3.9MMSCFD			
15	Water related:				

	1.	Source of Water	Water sourced from CGWA authorized Ground Water Sou
	2	Status of metering arrangement on Sources	**Digital meters – records are maintained in form of digital**
	3	Meter reading (if meter provided)	Meter readings records available.
	4	Metering arrangement for water consumption in various process/ use	Meter readings records available
	5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
	6	Status of logbook of water drawl and consumption	Logbook maintained
16		Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleani maintenance of the well are being collected & solar evaporated HDPE lined pit with the capacity of 1700 m^3 Solar evapo (8m3/day) is installed for enhance solar evaporation at Well pad Domestic wastewater is treated through onsite septic tank fol soak pit.
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all):		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	-
	B	Operational status of ETP units at the time of inspection:	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
	E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
		Discharge of wastewater (per day)	-
20		Point of discharge/disposal of wastewater and ultimate receiving body, adequacy of disposal:	
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-

	Method of conveyance of wastewater from industry to CETP:	-
	Adequacy of the CETP for total effluent reaching CETP	-
	Details of air pollution:	

Process Stacks:

Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	-	-	-	-	-	-
i)	Status of energy meter & hour meter	-				
ii)	Status of logbook of operation and meter	-				

Flue gases stacks

Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
1	**Mobile Flare**	**N. Gas**	-	**Provided**	**Stack height**	-	**Used during drilling and well maintenance**
i)	Status of energy meter & hour meter	Not Applicable.					
ii)	Status of logbook of operation and meter	Not Applicable.					

C. Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
i)	Status of energy meter & hour meter	Not Applicable			
ii)	Status of logbook of operation and meter	Not Applicable			

D. Details of incinerator: **Not Applicable**

A. For Liquid

		For Hazardous Waste (Solid) If Combined				
	B	Status of operation at the time of Inspection:				
	C	Temperature °C	Primary Chamber			
			Secondary Chamber			
	i)	Status of energy meter & hour meter				
	ii)	Status of logbook of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate safe infrastructure monitoring facility provided or not?
	1	2 X 1850 KVA	Provided	30 mtrs	Adequate	Used only during well maintenance During inspection drilling activities carrying out at well
	2	2 X 440KVA	Provided	4.5 mtrs	Adequate	
	3	3X 500 KVA	Provided	5 mtrs	Adequate	
	4	3 X 62 KVA	Provided	1.5 mtrs	Adequate	
	5	4 X 1500 KVA	Provided	30 mtrs	Adequate	
J		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul odor.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	**Details about Hazardous Waste Management:**				
	Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage		
	1	Drill cuttings excluding those from waste-based mud	2.1	925.00 MT/WELL SLF / Co processing in cement kiln		
	2	Sludge containing oil	2.2	53.00 MT/WELL/Annum Captive SLF/Co processing/Incineration/Registered Recycler		
	3	Drilling mud containing oil	2.3	475.00 MT/WELL Captive SLF/Co processing in cement kiln/Reprocess		
	4	Waste/residue containing oil	5.2	55 MT/Well/Annum Incineration/Sale to registered recyclers		
	5	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8.00 MT/WELL/Annum SLF/Sale to authorized recycler		
	6	Contaminated cotton rags orother cleaning materials	33.2	10 MT/WELL/Annum Captive SLF/Co-processing/Incineration/Registered Recycler		

7	Used or spent oil	5.1	5 MT/WELL/Annum Sales to Registered Recycler/ Reprocess
8	Sludge and filters contaminated with oil	3.3	8.0MT/Well/Annum Captive SLF/Co processing/Incineration/Registered Recyclers
9	Concentration or evaporation residues	37.3	50 MT/Well/Annum Captive SLF

	Form IV Copy enclosed	
32	Verification and irregularities/ gap found in manifests	No irregularities observed.
33	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-

34 Whether industry is a member of TSDF site or not? Cairn has its own captive TSDF facility at MPT

35	A	Status of logbook for hazardous waste:	Form 3 is being maintained
	B	Status of display board of size 4' x 6' at the main gate	Board displayed at site
	C	Status of display board at the storage area	All waste storage areas are well marked, and board displayed
36		Electric service number	Captive Power Generation at MPT and supplied to Mangala Well Pads through Over Headline
37		Water service number	Water sourced from MPT through pipeline (Water sourced from authorized ground water source)
38		Other relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Balotra
39		Details of water/ waste water sample collected during inspection	-
40		Details of air /emission sample collected during inspection	-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied

42	Cess verification		
	A	Consumption of water in different categories for cess assessment	Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e. effective from 1st July'17)
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-

C	Details of the deposition of cess	-
43	Specific non- compliances if any, observed during inspection:	-

Date:

Place:

Jitendra

Jitendra Dabi, JEE

Recommendation:

In light of aforementioned facts, industry's application dated 20/11/2021 (application id: 291561, unit id: 24118) for CTO may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

Rajkumar Sehra
Regional officer

Unit ID- 24118
App ID- 192390

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RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

a.	Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Hydrocarbon Drilling and Extraction From Mangala Well Pad-02 (PML1/Mangala/Well Pad-02)			
b.	Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		MWP-02	Jogasariya Kuwan	Baytau	Barmer
c.	E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
d.	Fax:	02982 – 225463			
e.	Mobile:	8003996696			
f.	Telephone:	02982-660113			
2	Date of inspection:	20 December, 2017			
3	Name and designation of the person contacted:	Dr. B. R. Jat, Sr. Manager			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Hydrocarbon Production Well Pad			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Enclosed			
10	Status of consent under the Water Act, 1974:	CTO Valid till 31/12/2017 (CTO Renewal applied on 30/08/2017 with Unit Id 24118 and Application Id 192390)			
11	Status of consent under Air Act, 1981:	CTO applied on 30/08/2017 with Unit Id 24118 and Application Id 192390)			
12	Status of authorization under HWM Rules	HWA Valid till 31/01/2020.			
13	Name of raw materials with quantity (per day or month or annum)	-			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	6,500.00 BOPD Barrels of Oil per Day 1.10 Million Metric Standard Cubic Feet Gas per Day			
15	Water related:				
	1. Source of Water	Water sourced from MPT through pipeline (Saline Ground Water from Thumbli Aquifer treated at MPT RO plant for well pad operations)			
	2. Status of metering arrangement on	Flow meter available			

	Sources	
	Meter reading (if meter provided)	Meter readings records available. Meter reading is zero as on 20.12.2017
	Metering arrangement for water consumption in various process/ use	Flow meter available
5	Water consumption process/ purpose wise	Domestic and Intermittently for other operational activities
6	Status of log book of water drawl and consumption	Log book maintained
	Waste water generation (Stream wise) per day	All the waste water generated intermittently while cleaning and maintenance of the well are being collected & solar evaporated in the HDPE lined pit with the capacity of 1700 m^3 Domestic waste water is treated through onsite septic tank followed soak pit.
7	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Well Maintenance: Disposal at HDPE Lined Concrete Evaporation Pond for Natural Evaporation within the Well Pad

18 In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): **Septic Tank followed by Soak Pit**

A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Flow Sheet):	-
B	Operational status of ETP units at the time of inspection:	-
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen Discharge of waste water (per day)	- Intermittently maximum 4 KLD waste water treated in solar evaporation pond
20	Point of discharge/disposal of waste water and ultimate receiving body, adequacy of disposal:	No surface discharge. Intermittent generated waste water discharged in Solar pond for Evaporation and Domestic waste water in septic tank followed by soak pit
21	Recycle of treated effluent (if any)	-
22	Details of recycling arrangements	-
23	Metering arrangements for recycling? If yes, then meter reading	-
24	Whether industry is a member of CETP? Provide details.	-

	CETP inlet norms	-
	Method of conveyance of waste water from industry to CETP:	-
	Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

Sr No	Process Stacks: Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
1		-	-	-	-	-
i)	Status of energy meter & hour meter	-				
ii)	Status of log book of operation and meter	-				

	Flue gases stacks						
Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure for monitoring facility provided or not?
	--						
i)	Status of energy meter & hour meter	Not Applicable.					
ii)	Status of log book of operation and meter	Not Applicable.					

C Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
i)	Status of energy meter & hour meter	Not Applicable			
ii)	Status of log book of operation and meter	Not Applicable			

D Details of incinerator: **Not Applicable**

A	For Liquid For Hazardous Waste (Solid) If Combined		
B	Status of operation at the time of Inspection:		
C	Temperature °C	Primary Chamber	
		Secondary Chamber	
i)	Status of energy meter & hour meter		
ii)	Status of log book of operation and		

meter

Details of D. G. Sets

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
-	-	-	-	-

Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

Fly ash management with all details, if applicable: **Not Applicable.**

A Details about Hazardous Waste Management:

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste based mud	2.1	925.00 MT/WELL (DRILLING PHASE) Captive SLF / Co processing in cement kiln
2	Sludge containing oil	2.2	3.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
3	Sludge containing oil	2.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
4	Drilling mud containing oil	2.3	475.00 MT/WELL (DRILLING PHASE) Captive SLF/Co processing in cement kiln/Reprocess
5	Sludge and filters contaminated with oil	3.3	3.00 MT/WELL (DRILLING PHASE) SLF/Co processing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	5.00 TPA (EXTRACTION PHASE) SLF/Co processing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	4.00 MT/WELL (DRILLING PHASE) SLF/Sale to authorized recycler
8	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	4.00 TPA (EXTRACTION PHASE) SLF/Sale to authorized recycler
9	Contaminated cotton rags or other cleaning materials	33.2	5.00 MT/WELL (DRILLING PHASE) MPT incinerator/Co processing at cement/power
10	Contaminated cotton rags or other cleaning materials	33.2	5.00 TPA (EXTRACTION PHASE) MPT incinerator/Co processing at cement/power
11	Concentration or evaporation residues	37.3	1.00 MT/WELL(DRILLING PHASE) CAPTIVE SLF
12	Concentration or evaporation residues	37.3	50.00 TPA (EXTRACTION PHASE) CAPTIVE SLF
13	Used or spent oil	5.1	1.00 TPA (EXTRACTION PHASE) Sales to Registered Recycler/ Reprocess
14	Used or spent oil	5.1	4.00 MT/WELL(DRILLING PHASE) Sales to Registered Recycler/ Reprocess

	Wastes or residues containing oil	5.2	5.00 MT/WELL(DRILLING PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
	Wastes or residues containing oil	5.2	50.00 TPA (EXTRACTION PHASE) Captive SLF/Co processing/Incineration/Registered Recycler
	Form IV Copy enclosed		
	Verification and irregularities/ gap found in manifests	No.	
	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable		
Whether industry is a member of TSDF site or not? Cairn has its own captive TSDF facility at MPT			
A	Status of logbook for hazardous waste:		Form 3 is being maintained
B	Status of display board of size 4' x 6' at the main gate		Board displayed at site
C	Status of display board at the storage area		All waste storage areas are well marked and board displayed
36	Electric service number		Captive Power Generation at MPT and supplied to all well pads through Over Head Line
37	Water service number		Water sourced from MPT through pipeline
38	Other relevant information regarding the industry, including complaints		No complaints received against unit at RSPCB Balotra
39	Details of water/ waste water sample collected during inspection		-
40	Details of air /emission sample collected during inspection		-
41	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied
42	Cess verification		
A	Consumption of water in different categories for cess assessment		Water consumption is being reported in monthly water cess report for MBA
	Category- I		
	Category - II		
	Category - III		
	Category - III		
	Category-IV		
B	Recommendation for the applicability of rates under section 3 (7) & 3 (2A) and rebate (with reasons)		-
C	Details of the deposition of cess		Advance Water Cess for till June'17 is submitted

300

Specific non compliances if any, observed during inspection.	

Name: V.S. Parihar
Scientific Officer, Balotra

Recommendations: Looking towards other facts CTE/CTO/Authorization may be Granted favourably provided fly deposits is adequate as per Law / Rules

CS

(J. Singh)
Regional Officer

(Note: The recommendation shall invariably be made by the Regional Officer in clear & specific manner. Regional Officer shall also specify action desired at HO level and disposal to be undertaken as HO level.

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report

a. Name of the Industry:	Vedanta (Cairn Oil and Gas) Limited			
b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
	Enhance Oil Recovery - Central Polymer Facility (CPF) Mangala -1	Jogasar Kuan	Baytau	Barmer
c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
d. Fax:	02982 – 225463			
e. Mobile:	8003996696			
f. Telephone:	02982-660113			
Date of inspection:	20.09.2022			
Name and designation of the person contacted:	Sh. Anurag Kumar, Environment Lead.			
Type of industry:	Oil & Gas - Exploration & Production			
Nature of industry:	Production of Hydrocarbons			
Size of industry: Large/ Medium/ Small	Large			
Category of industry: Red/ Orange/ Green/ Others	Red			
Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	Operational			
List of partners/ directors/ proprietor with addresses:	As submitted with application			
Status of consent under the Water Act, 1974:	CTO Valid till 31/10/2022 CTO renewal applied vide Unit ID 24118 and application ID 317341dated 01/08/2022.			
Status of consent under Air Act, 1981:	Same as above			
Status of authorization under HWM Rules	HWA Valid till 31/01/2026			
Name of raw materials with quantity (per day or month or annum)	-			
Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Concentrated Polymer Solution Or Mother Solution- 530 M^3/Day			
Water related:				
1. Source of Water	Water sourced from MPT through pipeline (Saline Ground Water from Thumbli Aquifer treated at MPT RO plant for well pad operations)			
2. Status of metering arrangement on Sources	Provided			
3. Meter reading (if meter provided)	-			

4. Metering arrangement for water consumption in various process/ use	-
5. Water consumption process/ purpose wise	Domestic and intermittently for other operational activities
6. Status of logbook of water drawl and consumption	-
Wastewater generation (Stream wise) per day	Domestic wastewater is treated through onsite septic tank followed soak pit.
Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-

In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): NA

A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flowSheet):	-
B	Operational status of ETP units at the time of inspection:	-
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-

Discharge of wastewater (per day)	-
Point of discharge/disposal of wastewater and ultimate receiving body. adequacy of disposal:	No surface discharges. Domestic wastewater disposed in septic tank followed by soak pit
Recycle of treated effluent (if any)	-
Details of recycling arrangements	-
Metering arrangements for recycling? If yes, then meter reading	-
Whether industry is a member of CETP? Provide details.	-
CETP inlet norms	-
Method of conveyance of wastewater from industry to CETP:	-
Adequacy of the CETP for total effluent reaching CETP	-

Details of air pollution:

	Process Stacks:					
Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details ofAPCM	Comment on adequacy of APCM	Whether adequate and safeinfrastructural monitoring

									facility provided or not?
	i)	Status of energy meter & hour meter							
	ii)	Status of logbook of operation and meter							
B		**Flue gases stacks**							
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?	
	i)	Status of energy meter & hour meter	Not Applicable.						
	ii)	Status of logbook of operation and meter	Not Applicable.						
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.							
	S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM			
	i)	Status of energy meter & hour meter							
	ii)	Status of logbook of operation and meter							
D		Details of incinerator: Not Applicable							
	A	For Liquid For Hazardous Waste (Solid) If Combined							
	B	Status of operation at the time of Inspection:							
	C	Temperature °C	Primary Chamber						
			Secondary Chamber						
	i)	Status of energy meter & hour meter							

iii	Status of logbook of operation and meter				
	Details of D. G. Sets -				
	Rating	Status of Acoustic enclosure	Details of Stack (in meters)	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
1.	2 X 2000 KVA	Provided	-	Adequate	Provided
2.	2 X 500 KVA	Provided	-	Adequate	
	Source of foul odor and measures taken to control, if any: This facility is not generating any foul order.				
Fly ash management with all details, if applicable: Not Applicable.					
Details about Hazardous Waste Management:					
Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage		
1.	Used or spent oil	5.1	24 KL/ANNUM Sales to Registered Recycler/ Reprocess		
2.	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	12 MT/ANNUM Sales to Registered Recycler		
3.	Contaminated cotton rags or other cleaning materials	33.2	12 MT/ANNUM Incineration/Co-processing		
	Verification and irregularities/ gap found in manifests	No irregularities observed.			
	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-			
Whether industry is a member of TSDF site or not? Unit has its own captive TSDF facility at MPT					
A	Status of logbook for hazardous waste:	-			
B	Status of display board of size 4' x 6' at the main gate	Board displayed at site			
C	Status of display board at the storage area	Displayed			
Electric service number		Captive Power Generation at MPT and supplied to plant through Over Head Line.			
Water service number		Water sourced from MPT (Water sourced from authorized ground water source Thumbli)			
Other relevant information regarding the industry, including complaints		-			
Details of water/waste watersample collected during inspection		-			

39	Details of air /emission sample collected during inspection		-
40	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied
41	Cess verification		
	A	Consumption of water in different categories for cess assessment	Water consumption is being reported in monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e., effective from 1st July'17).
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	c	Details of the deposition of cess	-
42		Specific non-compliances if any, observed during inspection:	-

Recommendation: In light of aforementioned facts, industry's application dated 01/08/2022 (application id: 317341, unit id 24118) for CTO Renewal may be considered for grant subject to fulfillment of other statutory requirement with condition as deemed appropriate.

(Jitendra) JEE	(Rajkumar Sehta) Regional Officer

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report

1	a. Name of the Industry:	Vedanta Limited, Cairn Oil and Gas (Old Name Cairn India Limited) Enhance Oil Repovery - Chemical Storage Warehouse
	b. Address of the Industry:	Address for | Village | Taluka/ Tehsil | District Village: Bank Nade Tehsil: Baytu District: Barmer
	c. E-mail:	RJOilEnvironmentManagedMPT@vedanta.com
	d. Fax:	02982 – 225463
	e. Mobile:	8003996696
	f. Telephone:	02982-660113
2	Date of inspection:	28 March 2023
3	Name and designation of the person contacted:	Mr. Ramesh, Env. Engg.
4	Type of industry:	Chemical storage Warehouse
5	Nature of industry:	Chemical Warehouse in RJ-ON-90/1 Block in Barmer District, Rajasthan
6	Size of industry: Large/ Medium/ Small	Large
7	Category of industry: Red/ Orange/ Green/ Others	Red
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation	Non – Operational during visit. As per representative this facility is non-operational from last two years
9	List of partners/ directors/ proprietor with addresses:	As submitted with application
10	Status of consent under the Water Act, 1974:	CTO Valid till 30/04/2023 CTO renewal applied with Unit Id 24118 & application number 331210 submitted on 25/01/2023
11	Status of consent under Air Act, 1981:	Same as above
12	Status of authorization under HWM Rules	Authorization valid till dated: 07/02/2020
13	Name of raw materials with quantity (per day or month or annum)	No process is involved in the warehouse except storage of the chemicals. This warehouse is a central storage facility for Enhanced Oil Recovery (EOR) chemicals. EOR chemicals include storage of polymers, surfactants, and other associated chemicals. As per representative there will be no open storage of the chemicals and the chemicals will be stored inside the containers, barrels, carboys etc.
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Same as above
15	Water related	
	1. Source of Water	Through tankers from MPT
	2. Status of metering arrangement on Sources	Tanker logbook maintained

3	Water reading of meter provided)	
4	Metering arrangement for water consumption in various process/ use	-
5	Water consumption process/ purpose wise	Domestic use
6	Status of log book of water drawl and consumption	Maintained
16	Waste water generation (Stream wise) per day	Domestic waste water is treated through onsite septic tank followed soak pit.
17	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-

18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all): NA		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Sheet)	- -
	B	Operational status of ETP units at the time of inspection	-
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof	-
	E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
	F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
19		Discharge of waste water (per day)	-
20		Point of discharge. Details of waste water and ultimate receiving body adequacy of discharge	No surface discharge. Domestic waste water treated in septic tank followed by soak pit
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangement	-
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-
25		CETP inlet norms	-
26		Method of conveyance of waste water from industry to CETP	-
27		Adequacy of the CETP for total effluent reaching CETP	-
28		Details of [illegible]	-
29		Process Stacks:	

Sr. No.	Stack attached to process	Stack height in meter & its adequacy	Pollutants [illegible]	Details of APCM	Comment on Adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	No Process Stack					

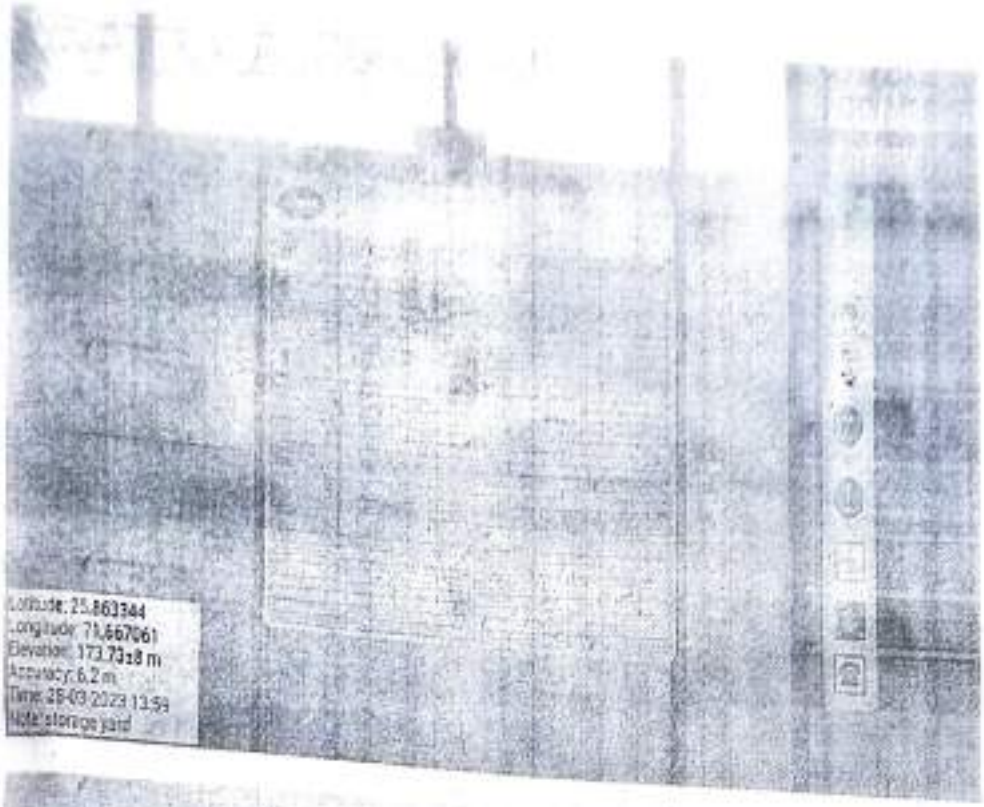
	Status of energy meter & hour meter						
	Status of logbook of operation and meter						
B	**Flue gases stacks -**						
	Stack attached to Plant	Fuel	Rated Fuel Consumption (lit/hr. Kg/hr. m³/cft)	Stack height – meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
	No Flue Gas Stack						
i)	Status of energy meter & hour meter	Not Applicable					
ii)	Status of logbook of operation and meter	Not Applicable					
C	Source of fugitive emission and measures taken to control if any with details & adequacy						
	Not Applicable						
Sr. no	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
-NA-							
i)	Status of energy meter & hour meter	Not Applicable					
ii)	Status of logbook of operation and meter	Not Applicable					
D	Details of incinerator: Not Applicable						
A	For Liquid For Hazardous Waste (Solid) If Combined		-				
B	Status of operation at the time of inspection:		-				
C	Temperature °C		Primary Chamber	-			
i)	Status of energy meter & hour meter		Secondary Chamber	-			
ii)	Status of logbook of operation and meter		-				
E	Details of D. G. Sets -		-				
	Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?		
1.	250 kVA – Total Two No's (1 Working and 1 Stand by) for backup	Provided	3.5 Meters	Adequate stack and acoustic enclosure	Yes		
F	Source of foul odor and measures taken to control, if any: This facility is not generating any foul order						
30	Fly ash management with all details, if applicable: Not Applicable						

31	A	Details about Hazardous Waste Management	
32		Verification and irregularities/ gap found in manifests	
33		Management/ Disposal of Spent Acid/Solvent/ Waste Oil, if applicable	
34		Whether industry is a member of TSDF site or not?	Cairn has its own captive TSDF facility at MPT
35	A	Status of logbook for hazardous waste	Maintained
	B	Status of display board of size 4' x 6' at the main gate	Board displayed at site
	C	Status of display board at the storage area	Displayed
36		Electric service number	RSEB Supply K. No. 330123027517
37		Water service number	Through tankers from MPT
38		Other relevant information regarding the industry, including complaints	No particular complaint received against unit at RSPCB Balotra
39		Details of water/ wastewater sample collected during inspection	
40		Details of air /emission sample collected during inspection	
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied
42		Cess verification	
	A	Consumption of water in different categories for cess assessment	Water consumption is being reported in the monthly water consumption report for MBA. Water cess is not applicable post implementation of GST (i.e., effective from 1st July'17).
		Category - I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	
	C	Details of the deposition of cess	
43		Specific non- compliances if any, observed during inspection	

Recommendation: In light of aforementioned facts, industry's application dated 25.0[illegible]/2025 (application id [illegible] unit id 24188) for CTO Renewal may be considered for grant subject to fulfillment of other statutory requirements with condition as deemed appropriate.

4 ([illegible]) JEE	(Rajkumar [illegible]) Environment Engineer Regional Office

346/L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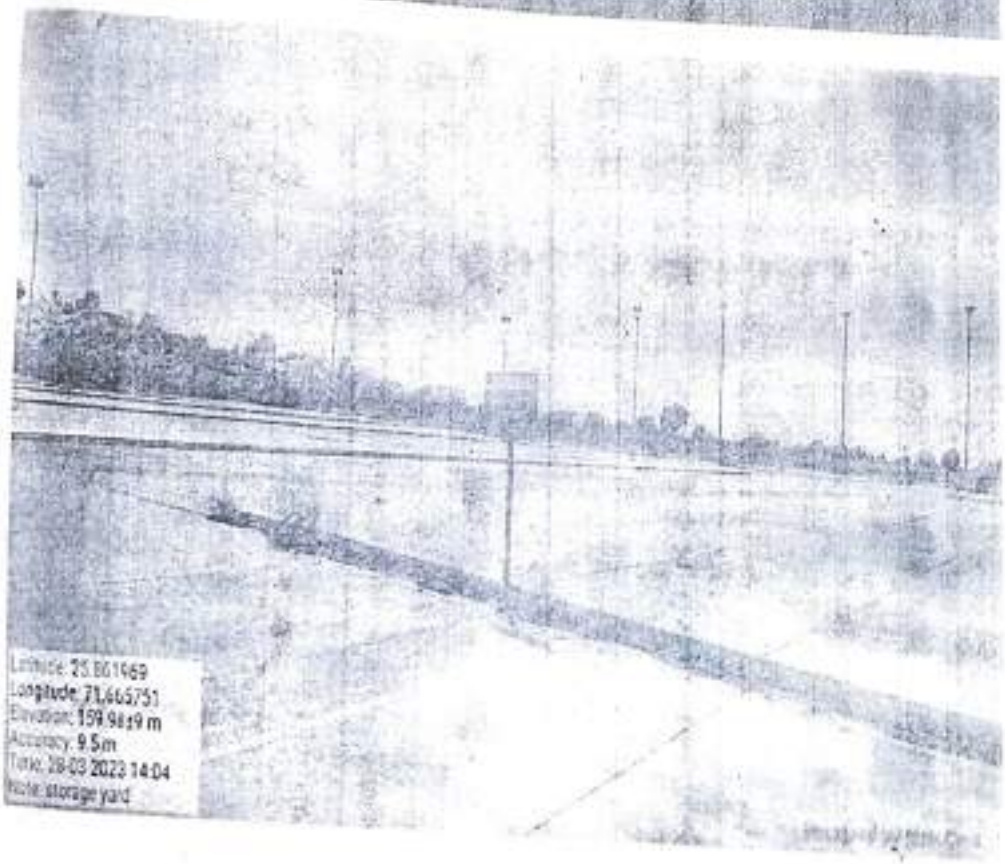
Accuracy: 6.2 m
Time: 28-03-2023 13:59
Note: storage yard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Elevation: 159.98±9 m
Accuracy: 9.5m
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Note: storage yard

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

1	a. Name of the Industry:	Enhanced Oil recovery – Chemical Storage Warehouse Yard
	b. Address of the Industry:	**Address for** | **Village** | **Taluka/ Tehsil** | **District** Village: Bank Nadi Tehsil: Baytu District: Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com
	d. Fax:	02982 – 225463
	e. Mobile:	8003996696
	f. Telephone:	02982-660113
	Date of inspection:	29 June 2018
	Name and designation of the person contacted:	Dr. B. R. Jat, Deputy General Manager - Environment
	Type of industry:	Chemical storage Warehouse
	Nature of industry:	Chemical Warehouse in RJ-ON-90/1 Block in Barmer District, Rajasthan
	Size of industry: Large/ Medium/ Small	Large
	Category of industry: Red/ Orange/ Green/ Others	Red
	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational
	List of partners/ directors/ proprietor with addresses:	Enclosed as **Annexure 1**
	Status of consent under the Water Act, 1974:	CTO Valid till 31/05/2018, Renewal Applied Dated 24.01.2018 Application id 201734 unit id 24118
	Status of consent under Air Act, 1981:	CTO Valid till 31/05/2018, Renewal Applied Dated 24.01.2018 Application id 201734 unit id 24118
	Status of authorization under HWM Rules	HWA Valid till 28.02.2020
	Name of raw materials with quantity (per day or month or annum)	No process is involved in the warehouse except storage of the chemicals. This warehouse is a central storage facility for the Enhanced Oil Recovery (EOR) chemicals. EOR chemicals include storage of polymers, surfactants and other associated chemicals. There will be no open storage of the chemicals and the chemicals will be stored inside the containers, totes, barrels, carboys etc.,
	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Total built up area is 80,100 m^2.
	Water related:	
1	Source of Water	Through tankers from MPT
2	Status of metering arrangement on Sources	-
3	Meter reading (if meter provided)	-
4	Metering arrangement for water consumption in various process/ use	-
5	Water consumption process/ purpose wise	Domestic use

h	Status of log book of water drawl and consumption	-
	Waste water generation (Stream wise) per day	Estimated maximum 15 KLD of sewage will be generated. At present around 3 KLD generated sewage is collected and treated in the septic tank and soak pit.
	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	NA

In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **Septic Tank Followed by Soak Pit**

A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Sheet):	-
B	Operational status of ETP units at the time of Inspection:	-
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
	Discharge of waste water (per day)	-
	Point of discharge/disposal of waste water and ultimate receiving body, adequacy of disposal:	-
	Recycle of treated effluent (if any)	-
	Details of recycling arrangements	-
	Metering arrangements for recycling? If yes, then meter reading	-
	Whether industry is a member of CETP? Provide details.	-
	CETP inlet norms	-
	Method of conveyance of waste water from industry to CETP:	-
	Adequacy of the CETP for total effluent reaching CETP	-
	Details of air pollution:	-

Process Stacks:

	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	-					
	No Process Stack	Nil	Nil	Nil	Nil	-
	Status of energy meter & hour meter	-				
	Status of log book of operation and meter	-				

Flue gases stacks –

	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	-						
	-						

No Flue Gas Stack	-
Status of energy meter & hour meter	-
Status of log book of operation and meter	-

Source of fugitive emission and measures taken to control, if any with details & adequacy:

Not Applicable

Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
Nil	Nil	Nil	Nil	Nil

Status of energy meter & hour meter	-
Status of log book of operation and meter	-

Details of incinerator: **Not Applicable**

For Liquid			
For Hazardous Waste (Solid)	-		
If Combined			
Status of operation at the time of Inspection:	-		
Temperature °C		Primary Chamber	-
		Secondary Chamber	-
Status of energy meter & hour meter	-		
Status of log book of operation and meter	-		

Details of D. G. Sets -

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
250 kVA – Total Two No's (1 Working and 1 Stand by) for backup	Provided	3.5 Meters	Adequate stack and acoustic enclosure	Yes

Source of foul odor and measures taken to control, if any: -

Fly ash management with all details, if applicable: -

Details about Hazardous Waste Management:

Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
Chemical containing residue from decontamination and disposal	Cat. 33.1	50 MT/ Month (Captive SLF)
Discarded containers/ Barrels/ Liners	Cat. 33.3	50 MT/Month (Sale to registered recycler
Used Oil	Cat.5.1	5 MT/Month (Sale to registered recycler)
Waste & Residue containing oil	Cat. 5.2	5 MT/Month (Incineration

Verification and irregularities/ gap found in manifests	**No irregularities observed.**
Management/ Disposal of Spent Acid/Solvent/ Waste Oil, If applicable	-
Whether industry is a member of TSDF site or not?	**Cairn has its own captive TSDF facility at MPT**
Status of logbook for hazardous waste:	**Yes**
Status of display board of size 4' x 6' at the main gate	**Yes**

Status of display board at the storage area	Updated
Electric service number	RSEB Supply K. No. 330123027517
Water service number	through tankers from MPT
Other relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Balotra
Details of water/ waste water sample collected during inspection	-
Details of air /emission sample collected during inspection	-
Compliance of CTE/ CTO/ Authorization / registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied
Cess verification	
Consumption of water in different categories for cess assessment	Water consumption included in MPT return
Category- I	
Category - II	
Category - III	
Category - III	
Category-IV	
Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
Details of the deposition of cess	Advance water cess paid till June, 2017.
Specific non- compliances if any, observed during inspection:	-

V.S. Parihar

Scientific Officer

Date:

Time:

Recommendations: - looking toward about details and comments the consent to operate may be consider favorably if remitted fee is adequate.

Regional Officer

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

1	a. Name of the Industry:	Enhanced Oil recovery – Chemical storage warehouse yard			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		Village: Bank Nadi Tehsil: Baytu District: Barmer			
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	22 Mar 2016			
3	Name and designation of the person contacted:	Dr. B. R. Jat, Senior Manager - Environment			
4	Type of industry:	Chemical storage Warehouse			
5	Nature of industry:	Chemical Warehouse in RJ-ON-90/1 Block in Barmer District, Rajasthan			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Enclosed Annexure - I			
10	Status of consent under the Water Act, 1974:	CTO Valid till 31/08/2016, Renewal Applied Dated 08.05.2015			
11	Status of consent under Air Act, 1981:	CTO Valid till 31/08/2016, Renewal Applied Dated 08.05.2015			
12	Status of authorization under HWM Rules	Applied for HWA			
13	Name of raw materials with quantity (per day or month or annum)	No process is involved in the warehouse except storage of the chemicals. This warehouse is a central storage facility for the Enhanced Oil Recovery (EOR) chemicals. EOR chemicals include storage of polymers, surfactants and other associated chemicals. There will be no open storage of the chemicals and the chemicals will be stored inside the containers, totes, barrels, carboys etc.,			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	The total area of the warehouse after expansion is around 80,100 m^2. This warehouse was already established for the built up area of 19,400 m^2 and this CTE and CTO is requested including additional area of up to 60,700 m^2.			
15	Water related:				
	1. Source of Water	PHED Water supplied through tankers			
	2. Status of metering arrangement on Sources	Tanker Log book maintained			

3	Meter reading (if meter provided)	Log book
4	Metering arrangement for water consumption in various process/ use	Log book
5	Water consumption process/ purpose wise	Domestic use
6	Status of log book of water drawl and consumption	Log book
	Waste water generation (Stream wise) per day	Estimated Maximum 15 KLD of sewage will be generated. At present Around 3 KLD generated sewage is collected and treated in the septic tank and soak pit.
	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	NA
In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **Septic Tank Followed by Soak Pit**		
A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow Sheet):	-
B	Operational status of ETP units at the time of inspection:	ETP not available
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	-
E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	-
F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	-
	Discharge of waste water (per day)	-
8	Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	Intermittent effluent generated from cleaning are being discharge in Solar Evaporation Pond and Domestic waste discharged Septic Tank followed by soak Pit
9	Recycle of treated effluent (if any)	-
a	Details of recycling arrangements	-
b	Metering arrangements for recycling? If yes, then meter reading	-
c	Whether industry is a member of CETP? Provide details.	-
d	CETP inlet norms	-
e	Method of conveyance of waste water from industry to CETP:	-
f	Adequacy of the CETP for total effluent reaching CETP	-
10	Details of air pollution:	
i	Process Stacks:	

Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
No Process Stack					
Status of energy meter & hour meter	-				
Status of log book of operation and meter	-				

Flue gases stacks –

Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
No Flue Gas Stack						
Status of energy meter & hour meter	Not Applicable.					
Status of log book of operation and meter	Not Applicable.					

Source of fugitive emission and measures taken to control, if any with details & adequacy:

Not Applicable

Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
Status of energy meter & hour meter	Not Applicable			
Status of log book of operation and meter	Not Applicable			

Details of incinerator: **Not Applicable**

For Liquid For Hazardous Waste (Solid) If Combined	-	
Status of operation at the time of Inspection:	-	
Temperature °C	Primary Chamber	-
	Secondary Chamber	-
Status of energy meter & hour meter	-	
Status of log book of operation and meter	-	

Details of D. G. Sets -

Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
250 KVA – Total Two Nos (1 Working and 1	Provided	3.2 Meters	Adequate stack	Yes

Stand by			and acoustic enclosure	

Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

Fly ash management with all details, if applicable: **Not Applicable.**

Details about Hazardous Waste Management: **No Hazardous waste Generated yet**

Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
Used Oil	Category 5.1	Estimated 2 TPA
Discarded containers/ Barrels/ Liners	Category 33.3	Estimated 10 TPA

Verification and irregularities/ gap found in manifests	**No irregularities observed.**
Management/ Disposal of Spent Acid/Solvent/ Waste Oil, if applicable	**No Hazardous waste is generated (i.e. Category 33.3, Category 5.1) till date therefore manifest is not enclosed (As reported)**
whether industry is a member of TSDF site or not?	**Cairn has its own captive TSDF facility at MPT**
Status of logbook for hazardous waste:	**Yes**
Status of display board of size 4' x 6' at the main gate	**Yes**
Status of display board at the storage area	**Updated**
Electric service number	**Power Generated from Diesel Generators**
Water service number	**through tankers**
Other relevant information regarding the industry, including complaints	**No complaints received against unit at RSPCB Balotra**
Details of water, waste water sample collected during inspection	-
Details of air /emission sample collected during inspection	-
Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied Annexure – II**
Cess verification	
Consumption of water in different categories for cess assessment	**Water consumption included in MPT return**
Category- I	
Category - II	
Category - III	
Category - III	
Category-IV	
Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
Details of the deposition of cess	**Advance Water cess of amount INR 16 .0 Lakhs has been paid to RSPCB with DD no: 513079230200004, acknowledgement copy enclosed. Annexure - III**

43	Specific non- compliances if any, observed during inspection:	-
Date: Place:		V.S. Parihar (S.O., RSPCB, BALOTRA) Name, Designation and Signature of Inspecting Officers

Recommendations:

Looking towards above facts Consent to operate under Air/Water and Authorization applications if pending may be issue a ware house of Cairn India Ltd. No processing of any kind except utilities the fee may be check at H.O, since this office has not received Consent to operate under Air/Water and Authorization applications in the record.

C.S.
(Jagdish Singh)
Regional Officer
Balotra

Note: The recommendation shall invariably be made by the Regional Officer in clear & specific manner. Regional Officer shall also specify action desired at HO level and disposal to be undertaken as HO level.

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report

1	a. Name of the Industry:	Vedanta (Cairn Oil and Gas) Limited			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		PML1 Mangala Well Pad -20 (3-6 well Site)	Nagana	Baytu	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	20.09.2022			
3	Name and designation of the person contacted:	Sh. Anurag Kumar, Environment Lead.			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Oil & Gas – Exploration& Production			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non-operational/ closed/ any other- if non-operational- reason and period of non-operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	As submitted with application			
10	Status of consent under the Water Act, 1974:	CTO Valid till 31/08/2022. CTO renewal applied with Unit Id 24118 & application id 30858 submitted on 22/04/2022.			
11	Status of consent under Air Act, 1981:	Same as above			
12	Status of authorization under HWM Rules	Authorization valid till dated: 31/03/2027			
13	Name of raw materials with quantity (per day or month or annum)	No raw material is used for oil extraction			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Water Injection: Injection capacity –20000.00 barrel/day			
15	Water related:				
1.	Water sourced from CGWA authorized Ground Water Source	Water sourced from CGWA authorized Ground Water Source			
2	Digital meters – records are maintained in form of digital data	Provided			
3	Meter readings records available.	-			
4	Meter readings records available	-			
5	Domestic and Intermittently for other operational activities	Domestic and intermittently for other operational activities			
6	Logbook maintained	yes			

16	Wastewater generation (Stream wise) per day	All the wastewater generated intermittently while cleaning and maintenance of the well are being collected, stored & solar evaporated in the concrete and HDPE lined pit (2 nos.) of capacity of each ~2000 m^3 Domestic wastewater is treated through onsite septic tank followed soak pit.
17	Whether the industry is connected with CETP or has provided EffluentTreatment Plant or treatment not required?	-
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's, please provide details for all):ETP Plant	
A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose flow sheet):	Flow Diagram attached
B	Operational status of ETP units at the time of inspection:	Operational
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	-
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	Water inlet records available based on pump feed rate & flow meter provided at outlet. Outlet meter reading 169712 as on 20.09.2022.
E	Whether logbook for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	yes
F	Characteristics of wastewater (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	Report Attached
19	Discharge of wastewater (per day)	~300cum per day (treated water outlet)
20	Point of discharge/disposal of wastewater and ultimate receiving body. adequacy of disposal:	No surface discharge. Intermittent generated waste water discharge in solar pond for evaporation and domestic waste water in septic tank followed by soak pit.
21	Recycle of treated effluent (if any)	Treated water injected into reservoir to maintain reservoir pressure for recovery of hydrocarbons
22	Details of recycling arrangements	-
23	Metering arrangements for recycling?If yes, then meter reading	-
24	Whether industry is a member of CETP? Provide details.	-
25	CETP inlet norms	-
26	Method of conveyanceof wastewater from industry to CETP:	-
27	Adequacy of theCETP fortotal effluent reaching CETP	-
28	Details of air pollution:	

A	Process Stacks:						
	Sr No	Stack attached to process	Stack height in meter & its	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?

			adequacy					
	1							
	i)	Status of energy meter & hour meter	-					
	ii)	Status of logbook of operation and meter	-					
B		Flue gases stacks						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure monitoring facility provided or not?
	1							
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of logbook of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy: This facility comprises of close loop system, there is no source of fugitive emission from process.						
	S. No.	Source	Probable details of pollutants		Probable pollutants	Details of APCM	Comments on adequacy of APCM	
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of logbook of operation and meter	Not Applicable					
D		Details of Incinerator: Not Applicable						
	A	For Liquid For Hazardous Waste (Solid) If Combined						
	B	Status of operation at the time of Inspection:						
	C	Temperature °C	Primary Chamber					
			Secondary Chamber					
	i)	Status of energy meter & hour meter						
	ii)	Status of logbook of operation and meter						
E		Details of D. G. Sets -						
	Sr. No.	Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?		

	1	2 X 1850 KVA	Provided	-	Adequate	These DG sets are used only during drilling& well maintenance activity. During inspection, no drilling activity were carrying out at well pad.
	2	4 X 500 KVA	Provided	-	Adequate	
	3	2 X 440 KVA	Provided	-	Adequate	
	4	4 X 62 KVA	Provided	-	Adequate	
	5	4 X 1500 KVA	Provided	-	Adequate	
	6	2 X 250	Provided	-	Adequate	

F		Source of foul odor and measures taken to control, if any: -
30		Fly ash management with all details, if applicable: Not Applicable.
31	A	Details about Hazardous Waste Management: Details as per HWA application submitted are provided below.

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Drill cuttings excluding those from waste-based mud	2.1	925 MT/WELL SLF/Coprocessing
2	Sludge containing oil	2.2	53 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
3	Drilling mud containing oil	2.3	475 MT/WELL Captive SLF/Coprocessing in cement kiln/Reprocess
4	Used or spent oil	5.1	5 MT/WELL/ANNUM Sales to Registered Recycler/ Reprocess
5	Waste/residue containing oil	5.2	55 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
6	Sludge and filters contaminated with oil	3.3	8 MT/WELL/ANNUM SLF/Coprocessing/Incineration/Sales to registered recyclers
7	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	33.1	8 MT/WELL/ANNUM Sales to Registered Recycler
8	Contaminated cotton rags or other cleaning materials	33.2	10 MT/WELL/ANNUM Incineration/Coprocessing
9	Concentration or evaporation residues	37.3	50 MT/WELL/ANNUM SLF/Coprocessing

32		Verification and irregularities/ gap found in manifests	No irregularities observed.
33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-
34		Whether industry is a member of TSDF site or not? Unit has its own captive TSDF facility at MPT	
35	A	Status of logbook for hazardous waste:	-
	B	Status of display board of size 4' x 6' at the main gate	Board displayed at site
	C	Status of display board at the storage area	Displayed
36		Electric service number	Captive Power Generation at MPT and supplied to a well pads through Over Head Line.
37		Water service number	Water sourced from MPT (Water sourced from authorized ground water sour Thumbli)
38		Other relevant information regarding the industry, including complaints	-
39		Details of water/ wastewater sample collected during inspection	-
40		Details of air /emission sample collected during inspection	-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, If applicable	Complied
42		Cess verification	
	A	Consumption of water in different categories for cess assessment	Water consumption is being reported in monti water consumption report for MBA. Water cess is n applicable post implementation of GST (i.e., effecti from 1st July'17).
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	-
43		Other observations	Bund wall height around the waste water stora is too short; the representative was advised increase the height in order to avoid possibility overflow.

Recommendation: In light of aforementioned facts, industry's application dated 22/04/2022 (application id: 308588, unit id 24118) for CTO Renewal may be considered for grant subject to fulfillment of other statutory requirements with conditi as deemed appropriate.

C/s

(Jitendra)
JEE

(Rajkumar Sehra)
Regional Officer

I/R No. 312

RAJASTHAN STATE POLLUTION CONTROL BOARD					
Inspection Report (First time detailed inspection or as and when detailed inspection is required)					
1	a. Name of the Industry:	Vedanta Limited (Cairn Oil & Gas), Water Injection Facility at Mangala 3/6 (PML 1/Mangala/Well Pad-20)			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		Mangala 3/6	Jogasar/Banda Talar	Baytu	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	15-March-2018			
3	Name and designation of the person contacted:	Dr. B. R. Jat, Sr. Manager			
4	Type of industry:	Water Injection Well Pad			
5	Nature of industry:	Oil & Gas Exploration & Production			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Enclosedas Annexure I			
10	Status of consent under the Water Act, 1974:	Fresh CTO application submitted on 21st April, 2017 Unit ID 9893 Application ID 181933			
11	Status of consent under Air Act, 1981:	Fresh CTO application submitted on 21st April, 2017 Unit ID 9893 Application ID 181933			
12	Status of authorization under HWM Rules	Fresh HWA application submitted on 22nd April, 2017 Unit ID 9893 Application ID 182844			
13	Name of raw materials with quantity (per day or month or annum)	-			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Injection capacity of 20,000 Barrels of Water per Day (20000 BoWPD)			
15	Water related:				
1.	Source of Water	Water sourced from MPT through tankers for domestic and other intermittent industrial operations			
2	Status of metering arrangement on Sources	-			
3	Meter reading (if meter provided)	-			

	4	Metering arrangement for water consumption in various process/ use	-
	5	Water consumption process/ purpose wise	**Domestic, Greenbelt and Intermittently for equipment washing**
	6	Status of log book of water drawl and consumption	-
16		Waste water generation (Stream wise) per day	**Flow back produce & well maintenance water from various activities being brought from operational well pads to Mangala 3/6 for pretreatment followed by re-injection into the reservoir.Any reject waste water and equipment wash water is being discharged into waste water pits for solar evaporation. Domestic waste water is treated through onsite septic tank followed soak pit.**
17		Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	-

18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **Pretreatment facility for injection water**		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose Flow Sheet):	Flow Diagram attached
	B	Operational status of ETP units at the time of inspection:	Operational
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	Dedicated DG sets
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	Water inlet records available based on pump feed rate& flow meter provided at outlet. Outlet meter reading 75643 as on 15.03.2018
	E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	Yes
	F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	Report Attached
		Discharge of waste water (per day)	~300-500 cum per day (treated water outlet)
20		Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	Treated water injected into reservoir to maintain reservoir pressure for recovery of hydrocarbons. Reject water is stored in solar evaporation pits
21		Recycle of treated effluent (if any)	-
22		Details of recycling arrangements	-

23	Metering arrangements for recycling? If yes, then meter reading	-
24	Whether industry is a member of CETP? Provide details.	-
25	CETP inlet norms	-
26	Method of conveyance of waste water from industry to CETP:	-
27	Adequacy of the CETP for total effluent reaching CETP	-
28	Details of air pollution:	

A — **Process Stacks:**

Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
1	-	-	-	-	-	-

i)	Status of energy meter & hour meter	-
ii)	Status of log book of operation and meter	-

B — **Flue gases stacks**

Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
1	4 X 1500 KVA	HSD		Provided	Provided		Only used during drilling operations
2	3 X 500 KVA	HSD		Provided	Provided		
3	2 X 440 KVA	HSD		Provided	Provided		
4	3 X 62 KVA	HSD		Provided	Provided		
5	2 X 250 KVA	HSD		Provided	Provided		For routine operations
6	1 X 62 KVA	HSD		Provided	Provided		
7	1X 500 KVA	HSD		Provided	Provided		

i)	Status of energy meter & hour meter	Not Applicable.
ii)	Status of log book of operation and meter	Not Applicable.

C — Source of fugitive emission and measures taken to control, if any with details & adequacy: **This facility comprises of close loop system, there is no source of fugitive emission from process.**

S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM

i)	Status of energy meter & hour meter	Not Applicable
ii)	Status of log book of operation and meter	Not Applicable

D		Details of incinerator: **Not Applicable**				
	A	For Liquid For Hazardous Waste (Solid) If Combined				
	B	Status of operation at the time of Inspection:				
	C	Temperature °C			Primary Chamber	
					Secondary Chamber	
	i)	Status of energy meter & hour meter				
	ii)	Status of log book of operation and meter				
E		Details of D. G. Sets -				
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	4 X 1500 KVA	Provided	30 Mtrs	Adequate	Only used during drilling operations
	2	3 X 500 KVA	Provided	5 mtrs	Adequate	
	3	2 X 440 KVA	Provided	4.5 mtrs	Adequate	
	4	3 X 62 KVA	Provided	1.5 mtrs	Adequate	
	5	500 KVA	Provided	5 mtrs	Adequate	DG Set not available at site
	6	2X 250 KVA	Provided	3.5 mtrs	Adequate	Provided
	7	62 KVA	Provided	1.5 mtrs	Adequate	DG Set not available at site
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**				
30		Fly ash management with all details, if applicable: **Not Applicable.**				
31	A	Details about Hazardous Waste Management: HWA Applied. Refer S. No. 12 for details				

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
1	Chemical Sludge from Waste Water Treatment	35.3	500 MT/Month (SLF/Co-processing)
2	Concentration or evaporation residue	37.3	50 MT/Well (Drilling Phase) 200 MT/Annum (Operation Phase) Disposal at Captive SLF, MPT
3	Contaminated cotton rags or other cleaning material	33.2	5 MT/Well (Drilling Phase) 5 MT/Annum (Operation Phase) Incineration and Co-processing
4	Drill cuttings excluding those from water based mud	2.1	925 MT/ well SLF/Co-processing
5	Drilling mud containing oil	2.3	475 MT/Well Captive SLF/Co-processing in cement kiln/Reprocess

	6	Empty barrels/containers /liners contaminated with hazardous chemicals/wastes	33.1	4 MT/Well (Drilling Phase) 4 MT/Annum (Operation Phase) Sales to Registered Recycler
	7	Sludge and filters contaminated with oil	3.3	3 MT/ Well (Drilling Phase) 5 MT/ Annum (Operation Phase) SLF/Co-pressing//sales to registered recyclers
	8	Sludge containing oil	2.2	3 MT/ Well (Drilling Phase) 50 MT/ Annum (Operation Phase) SLF/Co-pressing/Incineration/sales to registered recyclers
	9	Used or spent oil	5.1	4 MT/ Well (Drilling Phase) 1 MT/ Annum (Operation Phase) Reuse/sales to registered recyclers
	10	Wastes or residues containing oil	5.2	5 MT/ Well (Drilling Phase) 50 MT/ Annum (Operation Phase) SLF/Co-processing/Sale to registered recycler

32	Verification and irregularities/ gap found in manifests	No
33	Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-

34	Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**		
35	A	Status of logbook for hazardous waste:	**Form 3 is being maintained**
	B	Status of display board of size 4' x 6' at the main gate	**Board displayed at site**
	C	Status of display board at the storage area	**All waste storage areas are well marked and board displayed**
36		Electric service number	**Power from DG sets**
37		Water service number	**Water sourced from MPT through tankers (Saline Ground Water from Thumbli Aquifer treated at MPT RO plant for well pad operations)**
38		Other relevant information regarding the industry, including complaints	**No complaints received against unit at RSPCB Balotra**
39		Details of water/ waste water sample collected during inspection	-
40		Details of air /emission sample collected during inspection	-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	**Complied**
42	Cess verification		
	A	Consumption of water in different categories for cess assessment	**Water consumption is being reported in monthly water cess for MBA area**
		Category- I	
		Category - II	

		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	**Advance Water Cess for till June'17 is submitted**
43		Specific non- compliances if any, observed during inspection:	-

Date: Place:	Name: Vikram Singh Parihar Designation: Scientific Officer

Recommendations: Looking towards above facts Consent to Operate/ Authorization may be consider favorably if fee deposit is adequate as per Low/ Rules.

CS

(J. Singh)
Regional Officer

(Note: The recommendation shall invariably be made by the Regional Officer in clear & specific manner. Regional Officer shall also specify action desired at HO level and disposal to be undertaken as HO level.

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

1	a. Name of the Industry:	Cairn India Limited, Operations Base at Mangala Field			
	b. Address of the Industry:	Address for Operations Base	Village Nagana	Taluka/ Tehsil Baytu	District Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	13.10.2017			
3	Name and designation of the person contacted:	Dr. B. R Jat, Senior Manager- Environment			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Living quarters for Employees			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Enclosed			
10	Status of consent under the Water Act, 1974:	CTO Valid till 29.02.2016 Applied for Renewal 30-Oct-2015			
11	Status of consent under Air Act, 1981:	CTO Valid till 29.02.2016 Applied for Renewal 30-Oct-2015			
12	Status of authorization under HWM Rules	-			
13	Name of raw materials with quantity (per day or month or annum)	-NA-			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Operational Base650 personsaccommodation Occupancy of personal on inspection is 312 plus visitors around 120			
15	Water related:				
1.	Source of Water	Water sourced from MPT through pipeline			
2	Status of metering arrangement on Sources	Metered at MPT			
3	Meter reading (if meter provided)	Yes			
4	Metering arrangement for water consumption in various process/ use	Water is being used only for Domestic purpose			
5	Water consumption process/ purpose wise	-			
6	Status of log book of water drawl and consumption	-			

16	Waste water generation (Stream wise) per day	Living quarters and Office building to generate domestic waste water is treated in330 KLD Sewage Treatment Plant (STP) and used for greenbelt.
17	Whether the industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	Domestic waste water is treated through Sewage Treatment Plant (STP)

18 In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **330 KLD STP in operation**

A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose Flow Sheet):	Enclosed
B	Operational status of ETP units at the time of inspection:	Operational
C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	Yes, Separate energy Meter provided &reading during inspection 188570
D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	Yes, Inlet vol measure through pump flow rate & outlet Flow reading recorded during visit was 25805.
E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	Yes, log book contain energy meter reading, flow details, pump running hours, chemical consumption details etc.,
F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	Lab report attached
20	Discharge of waste water (per day) Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	No discharge from facility
21	Recycle of treated effluent (if any)	Treated water using for Greenbelt maintenance.
22	Details of recycling arrangements	Treated water tank provided with adequate pumping system and piping network to use Treated water for greenbelt.
23	Metering arrangements for recycling? If yes, then meter reading	-
24	Whether industry is a member of CETP? Provide details.	-NA-
25	CETP inlet norms	-NA-
26	Method of conveyance of waste water from industry to CETP:	-NA-
27	Adequacy of the CETP for total effluent reaching CETP	-
28	Details of air pollution:	

A **Process Stacks:**

Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
1	One no. Diesel fired boiler of capacity 0.65 TPH	30 Meters	-	-	-	Yes
2	Three no. kitchen	05 Meters	-	-	-	Yes

		chimneys						
	i)	Status of energy meter & hour meter	-					
	ii)	Status of log book of operation and meter	-					
B		**Flue gases stacks**						
	Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
		-NA-	-	-	-	-	-	
	i)	Status of energy meter & hour meter	Not Applicable.					
	ii)	Status of log book of operation and meter	Not Applicable.					
C		Source of fugitive emission and measures taken to control, if any with details & adequacy:						
	S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM		
	-NA-							
	i)	Status of energy meter & hour meter	Not Applicable					
	ii)	Status of log book of operation and meter	Not Applicable					
D		Details of incinerator: **Not Applicable**						
	A	For Liquid For Hazardous Waste (Solid) If Combined	-					
	B	Status of operation at the time of inspection:	-NA-					
	C	Temperature °C	Primary Chamber	-				
			Secondary Chamber	-				
	i)	Status of energy meter & hour meter	-NA-					
	ii)	Status of log book of operation and meter	-NA-					
E		Details of D. G. Sets -						
		Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?		
	1	**Two No's 1010 KVA EDG**	**Yes**	**Yes**	**Yes**	**Yes**		
F		Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**						
30		Fly ash management with all details, if applicable: **Not Applicable.**						
31	A	Details about Hazardous Waste Management:						
	Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage				
		-NA-	-	-				
32		Verification and irregularities/ gap found in manifests	**No irregularities observed.**					

33		Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, If applicable	-NA-
34		Whether industry is a member of TSDF site or not?	Cairn has its own captive TSDF facility at MPT
35	A	Status of logbook for hazardous waste:	-NA-
	B	Status of display board of size 4' x 6' at the main gate	-NA-
	C	Status of display board at the storage area	-NA-
36		Electric service number	Self-Captive Power Generation at MPT
37		Water service number	Water sourced from MPT through pipeline
38		Other relevant information regarding the industry, including complaints	No complaints received against unit at RSPCB Balotra
39		Details of water/ waste water sample collected during inspection	-
40		Details of air /emission sample collected during inspection	-
41		Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable	Complied
42		Cess verification	
	A	Consumption of water in different categories for cess assessment	Water consumption included in MPT and reported in monthly water cess
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	Advance water cess till June'17 is already paid.
43		Specific non- compliances if any, observed during inspection:	-

(V.S.Parihar)
S.O., RSPCB, Balotra

Recommendations:

Looking towards above facts if deemed fit and fee deposited in adequate CTO / CTE / Authorization if pending may be processed favourably for the grant of Consent.

Counter Signature

Regional Officer,
RSPCB, Balotra

RAJASTHAN STATE POLLUTION CONTROL BOARD

Inspection Report (First time detailed inspection or as and when detailed inspection is required)

1	a. Name of the Industry:	Cairn India Limited, Operations Base at Mangala Field			
	b. Address of the Industry:	Address for	Village	Taluka/ Tehsil	District
		Operations Base	Nagana	Baytu	Barmer
	c. E-mail:	RJON.EnvironmentManagerMPT@cairnindia.com			
	d. Fax:	02982 – 225463			
	e. Mobile:	8003996696			
	f. Telephone:	02982-660113			
2	Date of inspection:	22-Mar-2016			
3	Name and designation of the person contacted:	Dr. B. R Jat, Senior Manager- Environment			
4	Type of industry:	Oil & Gas - Exploration & Production			
5	Nature of industry:	Living quarters for Employees			
6	Size of industry: Large/ Medium/ Small	Large			
7	Category of industry: Red/ Orange/ Green/ Others	Red			
8	Status of Operation: operational/ non- operational/ closed/ any other- if non- operational- reason and period of non- operation.	Operational			
9	List of partners/ directors/ proprietor with addresses:	Enclosed Annexure - I			
10	Status of consent under the Water Act, 1974:	CTO Valid till 29.02.2016 Applied for Renewal 30-Oct-2015			
11	Status of consent under Air Act, 1981:	CTO Valid till 29.02.2016 Applied for Renewal 30-Oct-2015			
12	Status of authorization under HWM Rules	-			
13	Name of raw materials with quantity (per day or month or annum)	-NA-			
14	Name of product(s) and by-products manufactured with quantity (per day or month or annum)	Operational Base650 personsaccommodation Occupancy of personal on inspection is 312 plus visitors around 120			
15	Water related:				
1.	Source of Water	Water sourced from MPT through pipeline			
2	Status of metering arrangement on Sources	Metered at MPT			
3	Meter reading (if meter provided)	Log book maintained			
4	Metering arrangement for water consumption in various process/ use	Water is being used only for Domestic purpose			
5	Water consumption process/ purpose wise	-			
6	Status of log book of water drawl and consumption	-			
16	Waste water generation (Stream wise) per day	Living quarters and Office building to generate domestic waste water is treated in330 KLD Sewage Treatment Plant (STP) and used for greenbelt.			

17		Whether the Industry is connected with CETP or has provided Effluent Treatment Plant or treatment not required?	**Domestic waste water is treated through Sewage Treatment Plant (STP)**
18	In case Effluent Treatment Plant (ETP) provided, details of same (In case of multiple ETP's or STP's , please provide details for all): **330 KLD STP in operation**		
	A	Effluent Treatment Plant (ETP) unit operation/ processes with details and status (Enclose Flow Sheet):	**Enclosed Annexure - II**
	B	Operational status of ETP units at the time of inspection:	**Operational**
	C	Whether separate electric meter for Effluent Treatment Plant is provided or Not? If, yes then the meter reading	**Yes**
	D	Whether water meter at inlet, outlet and for recycle has been provided or not? If, yes, then reading thereof.	**Yes, flow meter provided.**
	E	Whether log book for operation, electric meter/ water meters/ chemicals consumption is maintained or not?	**Yes, flow meter provided**
	F	Characteristics of waste water (as per site observations) pH, temperature, Conductivity, Dissolved Oxygen	**Lab report attached**
		Discharge of waste water (per day)	
20		Point of discharge/disposal of waste water and ultimate receiving body. adequacy of disposal:	**No discharge from facility**
21		Recycle of treated effluent (if any)	**Treated water using for Greenbelt maintenance.**
22		Details of recycling arrangements	**Treated water tank provided with adequate pumping system and piping network to use Treated water for greenbelt.**
23		Metering arrangements for recycling? If yes, then meter reading	-
24		Whether industry is a member of CETP? Provide details.	-NA-
25		CETP inlet norms	-NA-
26		Method of conveyance of waste water from industry to CETP:	-NA-
27		Adequacy of the CETP for total effluent reaching CETP	-
28		Details of air pollution:	

A		**Process Stacks:**					
	Sr No	Stack attached to process	Stack height in meter & its adequacy	Probable pollutants	Details of APCM	Comment on adequacy of APCM	Whether adequate and safe infrastructural monitoring facility provided or not?
	1	**One no. Diesel fired boiler of capacity 0.65 TPH**	**30 Meters**	-	-	-	Yes
	2	**Three no. kitchen chimneys**	**05 Meters**	-	-	-	Yes
	i)	Status of energy meter & hour meter	-				
	ii)	Status of log book of operation and meter	-				

B **Flue gases stacks**

Sr No	Stack attached to Plant	Fuel	Rated Fuel Consumption (lt/hr, Kg/hr, mmscfd)	Stack height in meter & its adequacy	Details of APCM	Comments on adequacy of APCM	Whether adequate and safe infrastructure re monitoring facility provided or not?
	-NA-	-	-	-	-	-	
i)	Status of energy meter & hour meter	Not Applicable.					
ii)	Status of log book of operation and meter	Not Applicable.					

C Source of fugitive emission and measures taken to control, if any with details & adequacy:

S.No	Source	Probable details of pollutants	Probable pollutants	Details of APCM	Comments on adequacy of APCM
-NA-					
i)	Status of energy meter & hour meter	Not Applicable			
ii)	Status of log book of operation and meter	Not Applicable			

D Details of incinerator: **Not Applicable**

A	For Liquid For Hazardous Waste (Solid) If Combined	For Hazardous Solid Waste only	
B	Status of operation at the time of Inspection:	-NA-	
C	Temperature °C	Primary Chamber	-
		Secondary Chamber	-
i)	Status of energy meter & hour meter	-NA-	
ii)	Status of log book of operation and meter	-NA-	

E Details of D. G. Sets -

	Rating	Status of Acoustic enclosure	Details of Stack	Adequacy of stack and acoustic enclosure	Whether adequate and safe infrastructural monitoring facility provided or not?
1	**Two No's 1010 KVA EDG**	**Yes**	**Yes**	**Yes**	**Yes**

F Source of foul odor and measures taken to control, if any: **This facility is not generating any foul order.**

30 Fly ash management with all details, if applicable: **Not Applicable.**

31 A Details about Hazardous Waste Management:

Sr No	Source of Hazardous Waste	Category of Hazardous waste	Quantity of Hazardous Waste Generated / Storage
	-NA-	-	-

32 Verification and irregularities/ gap found in manifests: **No irregularities observed.**

33 Management/ Disposal of Spent Acid/ Solvent/ Waste Oil, if applicable: **-NA-**

34 Whether industry is a member of TSDF site or not? **Cairn has its own captive TSDF facility at MPT**

35	A	Status of logbook for hazardous waste:	-NA-
	B	Status of display board of size 4' x 6' at the main gate	-NA-
	C	Status of display board at the storage area	-NA-

36	Electric service number		Self-Captive Power Generation at MPT
37	Water service number		Water sourced from MPT through pipeline
38	Other relevant information regarding the industry, including complaints		No complaints received against unit at RSPCB Balotra
39	Details of water/ waste water sample collected during inspection		-
40	Details of air /emission sample collected during inspection		-
41	Compliance of CTE/ CTO/ Authorization / Registration / Undertaking / Bank Guarantee if any, EC- conditions, if applicable		Complied Analysis report Annexure - III
42	Cess verification		
	A	Consumption of water in different categories for cess assessment	Water consumption included in MPT
		Category- I	
		Category - II	
		Category - III	
		Category - III	
		Category-IV	
	B	Recommendation for the applicability of rates under section 3 (2) & 3 (2A) and rebate (with reasons)	-
	C	Details of the deposition of cess	Advance Water cess of amount INR 16 .0 Lakhs has been paid to RSPCB with DD no: 513079230200004, acknowledgement copy enclosed. Annexure - IV
43		Specific non- compliances if any, observed during inspection:	-

Date:
Place:

V.S. Parihar
(S.O., RSPCB, BALOTRA)
Name, Designation and Signature of Inspecting Officers

Recommendations: Looking towards above facts Consent to operate may be considered for grant of consent favorably if fee deposited is adequate

C.S.

(Jagdish Singh)
Regional Officer
Balotra

(Note: The recommendation shall invariably be made by the Regional Officer in clear & specific manner. Regional Officer shall also specify action desired at HO level and disposal to be undertaken as HO level.