

Jamaica, W.I.

**Environmental Impact Assessment** 

for

**Proposed Bauxite Mining Operations** 

Special Exclusive Prospecting License 524 (SEPL 524) Area

located in

St. Ann, Jamaica

**UC Rusal Alumina Jamaica Limited (Windalco)** 

## **Mandatory Public Meeting Report**

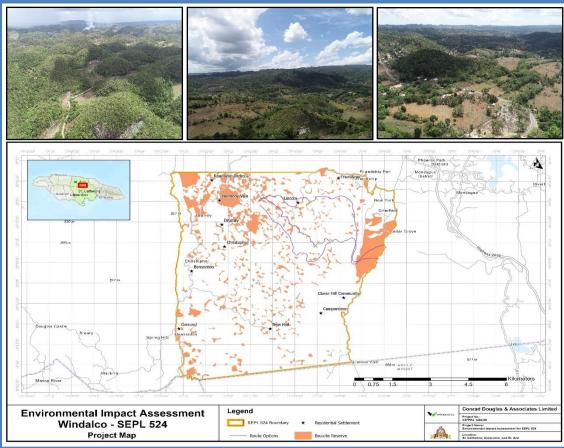
Mandatory 'Mixed Virtual' Public Meeting

held on

July 1, 2021







## CONRAD DOUGLAS & ASSOCIATES LIMITED

14 CARVALHO DRIVE, KINGSTON 10, JAMAICA W.I.

(876)929-0023/0025/8824

info@cdaestech.com; cdaestech@hotmail.com; conraddouglasnassociatesltd@gmail.com www.cdaestech.com

## **Environmental Impact Assessment**

## **Proposed Bauxite Mining Operations**

## Special Exclusive Prospecting License 524 (SEPL 524) Area

located in

St. Ann, Jamaica

**UC Rusal Alumina Jamaica Limited (Windalco)** 

## **Mandatory Public Meeting Report**

Mandatory 'Mixed Virtual' Public Meeting

July 1, 2021

*Prepared on behalf of:* 



**UC Rusal Alumina Jamaica Limited (Windalco)** 

**Ewarton Works** St. Catherine Jamaica, W.I.

#### Prepared by:



## **Conrad Douglas & Associates Limited**

14 Carvalho Drive • Kingston 10 • Jamaica Tel: (876) 929-0023 • (876) 929-0025 • (876) 929-8824

> Fax: (876) 960-2014 Email: info@cdaestech.com

Website: www.cdaestech.com

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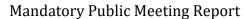




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Mr. Glendon Johnson, Human Resources Director, UC Rusal Alumina Jamaica Limited
(Windalco), Mr. Kurt Johnson, Mining Manager, Windalco and Mr. Miguel Nelson, Manager,
Applications Secretariat Branch, the National Environment & Planning Agency (NEPA).
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#### 1.0. Executive Summary

#### 1.1. Introduction & Background

In keeping with the principles embodied in Agenda 21, the professional interdisciplinary conduct of an Environmental Impact Assessment (EIA) requires that public consultation be conducted among the affected populations and the stakeholders, primarily to obtain their views, concerns and issues, among other things and to address these in the EIA process.

In this regard, the National Environment & Planning Agency (NEPA) requires that a Mandatory Public Meeting be held in respect of the Environmental Impact Assessments (EIA) for proposed development after submission of the EIA to complete the application process.

Using NEPA's amended guidelines for conducting virtual public meetings, during the preparation of the EIA, Conrad Douglas & Associates Limited (CD&A) conducted Voluntary Consultation Meetings with community members and stakeholders within SEPL 524 to inform, educate and even more importantly to obtain the views of the immediate communities on this proposed project.

This Mandatory Public Meeting was convened following NEPA's acceptance of the "Draft Final Environmental Impact Assessment Report on the Proposed Bauxite Mining Operations in the Special Exclusive Prospecting License 524 (SEPL 524) Area located in St. Ann, Jamaica by UC Rusal Alumina Jamaica Limited (Windalco)". The meeting was convened on July 1, 2021 and commenced at 5:45 pm.

#### 1.2. Approach & Methodology

Consequent on the COVID-19 pandemic, the Disaster Risk Management (Enforcement Measures) Order, 2020, and NEPA's instructions, CD&A made preparations for the mandatory public meeting in keeping with the document titled, "Addendum to Public Consultation Guidelines (EIA Projects)" (See Appendix I).

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The following methods were used to announce the event in the various communities close to the proposed bauxite mining operations in the Special Exclusive Prospecting License 524 (SEPL 524) Area located in St. Ann, Jamaica:

- Copies of the Draft Final EIA report and companion documents were placed in the following locations prior to the meeting:
  - i. National Environment and Planning Agency Documentation Centre, 10
     Caledonia Avenue, Kingston 5
  - ii. Harmony Vale Basic School, St. Ann
  - iii. Bensonton Postal Agency, St. Ann
  - iv. Emanuel Wisdom Centre, St. Ann
  - v. Praise Center Church, St. Ann
  - vi. Mount Waddy Primary School, St. Ann
  - vii. Jeffrey Ville Basic School, St. Ann
  - viii. St. Ann Parish Council, St. Ann's Bay, St. Ann
    - ix. NEPA's Website <u>www.nepa.gov.jm</u>
    - x. CD&A's Website <u>www.cdaestech.com</u>
- An advertisement in the Jamaica Gleaner on June 8, 2021 (See Appendix II).
- A series of advertisements in the Observer (See Appendix III). The advertisements in the Observer commenced on June 9, 2021 leading up to June 30, 2020.
- The advertisement of the Mandatory Public Meeting was posted on NEPA's and CD&A's website.
- Jamaica News Network (JNN) placed several running advertisements on their website and other platforms
- Town Criers were used to announce and invite members of the communities to the Mandatory Public Meeting (throughout all the communities), which fall within the sphere of influence that could be potentially impacted by the project. This was done from June 24, 2021 to the start of the meeting on July 1, 2021.
- Distribution of flyers (invitations) (See Appendix IV) to community members and placement of flyers/invitations on notice boards of public institutions were done concurrently by the Town Crier.





- Letters of invitation were delivered to the following (A sample of the letters of invitation is shown in Appendix V)
  - Representatives from the following Ministries:
    - Transport and Mining
    - Science, Energy and Technology
    - Economic Growth and Job Creation
    - Labour and Social Security
    - Health & Wellness
  - o Members of Parliament
  - Local Government Councilors
  - The following agencies:
    - National Environment & Planning Agency
    - Office of Disaster Preparedness & Emergency Management
    - Jamaica Constabulary Force
    - Jamaica Fire Brigade
    - Jamaica Bauxite Institute
    - Mines & Geology Division
    - Water Resources Authority
    - Jamaica National Heritage Trust
    - National Works Agency
    - Social Development Commission
    - St. Ann Municipal Corporation
  - o The Custos of St. Ann
  - St. Ann Chamber of Commerce
  - o Jamaica Environment Trust
  - The University of the West Indies

The interactive "Mixed-Virtual Public Meeting" was:

Broadcasted live on:

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o Jamaica News Network (JNN) and





- o Power 106 FM
- Streamed live on:
  - o Jamaica News Network's YouTube Page
  - o Television Jamaica's YouTube Page and
  - o Zoom (ID: 892 7755 2762 | Password: 532634)
- Streamed live to the following Satellite Locations:
  - o Harmony Vale Baptist Church, St. Ann,
  - o Jeffreyville Methodist Church, St. Ann, and
  - o Grierfield Church of God, St. Ann

Questions and comments were taken from Zoom (ID: 969 9027 3594 | Password: 203943), WhatsApp (876-878-1356) or Telephone (876-733-2461-6).

A Non-Technical Document (See Appendix VI) was also distributed prior to and at the meeting.

#### 1.3. Mandatory Public Meeting

The Mixed-Virtual Public Meeting was convened under the chairmanship of Ms. Fae Ellington. The meeting was guided by a NEPA Approved Agenda (See Appendix VII), which was distributed at the meeting. Prayer was offered by Reverend Stanley Griffin, Pastor, Jeffreyville Methodist Church.

Mr. Miguel Nelson, Manager, Applications Processing Branch, Applications Management Division, NEPA read a statement on behalf of NEPA.

A presentation (See Appendix XI) on the proposed project was made by Dr. Mark Richards, Technical Director, Conrad Douglas and Associates Limited (CD&A).

A total of 186 persons attended in-person at the following locations:

• Harmony Vale Baptist Church, St. Ann 61 persons (see Register - Appendix VIII)

Jeffreyville Methodist Church, St. Ann
 86 persons (see Register - Appendix IX)





Grierfield Church of God, St. Ann 39 persons (see Register - Appendix X)

In addition, there were several attendees on the following media platforms:

- Jamaica News Network's YouTube Page
- Television Jamaica's YouTube Page, and
- Zoom

As required by NEPA's Guidelines the meeting was recorded *ad verbatim* by a highly qualified and experienced court stenographer. The verbatim report is presented in Appendix XII.

Please see the photo-inventory of the proceedings of the meeting in Appendix XV.

The meeting commenced at 5:45 pm and was terminated by the Chairman at 7:45 pm.

#### 1.4. Questions and Issues Raised by Participants at the Meeting

The following questions and comments were raised by the participants of the meeting and presented to the panel by the Chairman. These are also illustrated in the pie charts below. Other questions and comments captured in the Zoom and WhatsApp chats are presented in Appendix XIII and Appendix XIV, respectively:

- 1. How will the compensation package be structured?
- 2. My main concern about everything that is happening with this project is environment and our health. That's my main two concerns the environment and our health. That's my two (2) concerns: The environment and health of the people in the communities
- 3. After reading the Manual I see where they said they would provide topsoil but essential minerals will be removed causing a setback on harvesting and an overall growth of produce which will affect livelihood of the farmers. How do you propose to assist the farmers in this area.
- 4. Second question, does Windalco have any future plans to assist with the development of the Harmony Vale community?
- 5. Where is the soil stored?





- 6. For how long is it kept there?
- 7. I just want to know if the company going to assist us with water? And the next question is, Balmony is on the list to mine?
- 8. I wanted to know when bauxite cut the road through the people land if they are going to buy it or whatsoever they are going do.
- 9. What I would like to know is, if a person is going to be located will they be given an opportunity to choose where they want to go?
- 10. If anything and they mine where you live and things like that, what they do like the first time like relocate you and whatever compensate till or whatever. I would like to know it straight out understand it more clear for.
- 11. Do you have any data on the effectiveness of what he is suggesting, mitigating measures in other bauxite mining communities?
- 12. What evidence supports that ground water levels and flow in the special exclusive prospective license 524 area would be similar to that determined in the Moneague area to the northeast? And I think it goes on to the ground water flow in karstic features is channeled and not always uniformed.
- 13. Bauxite is a finite resource so, why is the company still pursuing this because they will still have to find a business model when all bauxite deposits dry up, why not switch to renewable energy production?
- 14. What is the compensation health-wise as dust will be an ongoing disturbance?
- 15. What happens if you are on land for twelve (12) years but no title, how will you be treated?
- 16. Where we 'lives' we have water from the Water Commission but not every day. So, we have to use tanks to store our water, so whenever this project 'started' and the dust 'started' affecting us what can we do to protect or what will you do to protect us when dust start falling in our water and we have no other choice, what can we do at that time?
- 17. What are the specific areas where mining will be done and what are the possible areas for haul roads construction in this project area?
- 18. People who are living in the communities with asthma how bad will the dust affect them?



- 19. Where the bauxite company have land that is not going to be mined and is not occupied, is there any possibility that the people in and around the community can have access to those 'land' to help to build up the community?
- 20. There are a lot of young people in this area and there is no recreation area for these young people. I am wondering if Windalco will be kind enough to do something for these young people by providing an area where they can have recreation? Cricket, football and other things, and even an area where they could have a building where they could go for evening classes and so on, because this is a very large area and these young people really need help.
- 21. We are low on employment here, I am wondering how will this impact us employment, and what will happen to the flora and fauna as we have two endangered species?
- 22. The EIA has spent a considerable amount of time describing the baseline conditions but not enough details on impact assessment, where are the detailed management plans stating how will this actually be done?
- 23. The EIA by Conrad Douglas and Associates is almost the same as the one they did for SML 173 Terms of Reference to damage, Compensation, mitigation et cetera. Why does it seem that all potential negative impacts are being downplayed and benefits highlighted and mitigation measures presented as easily accomplished?
- 24. Rusal has not lived up to their word in other communities that they have mined, so who says they will do this in this area?
- 25. Our young people I suspect, and other persons here would be in your employ during their mining operations. I want to know about the health care packages that you guys have for them because one of you on the panel mentioned something about those that are in the mining area specifically will be most affected. Whilst we understand that, I also would like to make a proposition. Because as you will notice throughout the communities when they mentioned, the question that keeps coming up is the concern about the dust and our health.
- 26. So, my proposition to you is, is it possible at like six months intervals for you to do check ups in our communities? What are you putting in place to ensure that our residents are at optimal health and that they are not essentially because we have very nice clean fresh

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air down air, and everybody loves it this way, most people come to country for that reason and we just want to keep it that way

- 27. After the mining and those holes that they have mined out from, what will they do to you know, cover those holes or to make sure those holes are maybe use for wells or water or something, what will they do after mining with those sink holes?
- 28. The concern stem around agriculture, because Bensonton is an agricultural belt, we have a of small cash crop farmers there and from our historical experience and if you look at southwest St. Ann even though the technocrats speak about reclamation of land, it never comes back to its original esteem and pristine soil. So, we are concerned about that.
- 29. The other thing we are concerned about is just the upheaval. If it is going to be some 22 years, that is significant upheaval and I think sometimes even some of the older residents believe that it's going to mimic the old type of Reynolds Plant that used to be down in Lydford. So, it's tremendous technical transfer now as it relates to bauxite mining. Because it's not a lot of job that's going to be produced by the company. And we need to have a larger discussion and a more in-depth, intimate discussion in the communities so they can really understand is going to happen not only with the production of the bauxite and the mining of the bauxite but what really happens with the expatriation of the funds when it leaves the country.
- 30. We have a very, very close-knit community up in Bensonton and places like Moneague. Yes, farmers are able to get small parcels of lands in Grierfield and in Harmony Vale now if they ask. But the other issue, and for years Windalco has a well going up to Harmony Vale and the resident don't have access to it. So, we need to have some very, very honest conversation...
- 31. I believe when one is mining blasting must take in consideration.....how far will that go if it will affect me and I wouldn't want it to be a case where after you leave our community in a couple years time my house start to 'cracked' up. So, could you just inform me and let me know how far the blasting will take place?
- 32. When mining is taking place in this area, is there any plan for relocation of resident or church or school?





- 33. Productivity of the land can never be significantly restored for people or the existing ecosystems. Which tree can grow in 24 inches of soil? You have highlighted agricultural productivity but failed to mention the prospect of restoring ecological productivity
- 34. What will be the economic impact of this mining compared to the loss of income of approximately 2,000 farmers?

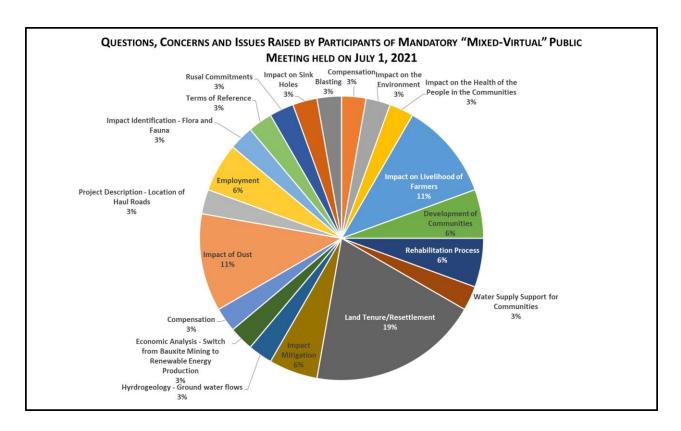


Figure 1: Concerns and Issues Raised by Participants of the 'Mixed Virtual' Mandatory Public Meeting

#### 1.1. Conclusions

The Mandatory Public Meeting was effectively planned, organized and implemented in compliance with the requirements of NEPA's guidelines. Various questions and issues were raised by the participants, comments made, and answers provided as far as possible by the consultants. These were diligently recorded *ad verbatim* as required by the permitting process for the EIA review.



# **APPENDIX**



#### Appendix I: Addendum Guidelines for Convening of Mandatory Public Meeting

# Addendum to Public Consultation Guidelines For Environmental Impact Assessments

This addendum is made in relation to the conduct of public consultations for Environmental Impact Assessments where public meetings cannot be held and permission to be proceed with the consultation has been given by the National Environment and Planning Agency.

For public consultations, where public meetings cannot be held, the following guidelines must be followed:

- The consultations should be broadcast live (radio/television). As far as is reasonably possible, the applicant should use local and community stations (for example PCB, JIS). This should be twinned with livestreaming on the various social media platforms (must be interactive)
- Toll free numbers should be created and disseminated for the stakeholders to call in and participate
- The proceedings should be recorded and posted to a website that is zero rated for 21 days to allow for further comments
- Targeted groups to include local political representatives, environmental NGOs, civil society
  groups, municipal corporations, chambers of commerce and, citizens associations should be
  specifically invited to participate

TAKE CAREFUL NOTE: All other requirements of the Public Consultation Guidelines for Environmental Impact Assessments remain and the Applicant is to strictly comply.





#### Appendix II: Advertisements in the Gleaner



#### Appendix III: Advertisements in the Observer

Jamaica Observer | Wednesday, June 09, 2021 | Business Observer | 19B

## Auditor generals must ensure accountability of public funds spent during pandemic

SSOCIATION of Chartered Certified Accountants (ACCA) and International Organ-isation of Supreme Audit Institution (INTOSAI) Derestation (INTOSA) De-velopment Initiative (IDI) have teamed up to high-light the important role of supreme audit institu-tions (SAIs) during times of crists. of crisis.

The novel coronavirus

pandemic required unprec-edented public sector in-terventions in our societies and economies, globally. Governments had to react quickly and under significant pressure to protect both lives and citizens from the worst

impacts of the pandemic. SAIs are essential in holding governments to account in how they spend and allocate resources. support SAIs, ACCA and IDI are releasing resources so that SAIs can carry out post-COVID-19 compilance audits that focus on trans-parency, accountability and inclusiveness.

The toolkit includes three policy briefs focusing on the following aspects of public spending during COVID-19:

Leave no one behind: COVID-19 exacerbased inequalities, many of which were overlooked when sowere oversooked when so-cio-economic packages to tackle the impacts of the pandemic were developed and implemented. Public audits can help shed light on whether legislative and reg-ulatory frameworks account for such inequalities, and if existing safeguards were compiled with.

Procuring at speed: This brief focuses on the risks associated with emergen-cy procurement during the COVID-19 crists. Specifically, how public audits can evaluate if existing and emergency frameworks were

Beyond keeping receipts: At times of crisis, accountability and transparency tend to take a back seat - making



public sudit a more difficult undertaking. However, to maintain public trust and protect public funds, governspending has a clear audit ments must ensure all public

Mike Suffield, director of ACCA's Professional Insights

The nature of the current COVID-19 pandemic has meant public spending, in many jurisdictions, occurred through fast-tracked process-es. As a result, risks of corruption, mismanagement and waste have certainly been

increased.
This is where supreme audit Institutions must take the lead. They can help address concerns around equality and transparen-cy as countries review how spending actually occurred – who received the benefits of this spending and who was left behind?

"With the help of auditors general, we can begin to learn lessons from the pandemic and ensure our responses in the future better consider the importance of transparency, accountability and inclusiveness."

Hinar Gerrissen, director general of IDI adds

"To assist supreme audit institutions (SAIs) during the COVID-19 outbreak, IDI launched the Global Cooperative Compilance Audits of the Transparency, Accountability and Accountability and Inclusiveness of Use of Emergency Funding for COVID-19 (TAI audius).

"SAIs have been increas-ingly challenged throughout the last 15 months, not only to ensure that their govern-ments are held to account in unprecedented circumstanc-es but to learn, apply and roll out complex compliance audits at a time when pres-sures on resources have been enormous

"The role of the SAI auditor has never been

# The Jamaica Observer **ALWAYS AHEAD**

ACCA Think Ahead more important, relevant ensure that the lessons and transparency, accountability and visible than during this pandemic. Together, we can impact positively on the audits."

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RUSAL

#### NOTIFICATION OF PUBLIC MEETING

Conrad Douglas & Associates Limited, as consultant with responsibility for the Environmental Impact Assessment for Proposed Bauxite Mining Operations, by UC Rusal Alumina Jamaica Limited (Windalco), in the Special Exclusive Prospecting License 524 (SEPL 524) Area, located in the Parish of St. Ann, hereby, invites you to the Public Participation on the said Environmental Impact Assessment, to be held on Thursday, July 1, 2021 at 5:15pm (Bogota or Local Time).

Due to COVID 19 concerns and protocols, the Public Participation will be an interactive "Mixed-Virtual Public Meeting" that will be:

- Broadcasted live on Jamaica News Network (JNN)
- Broadcasted live on Power 106 FM
- Streamed live on Jamaica News Network's YouTube Page
- Streamed live on Television Jamaica's YouTube Page
- Streamed live on Zoom
- Streamed live to the following Satellite Locations
   Harmony Vale Baptist Church, St. Ann
   Jeffreyville Methodist Church, St. Ann, and

  - · Grierfield Church of God, St. Ann.

ALL COVID 19 PROTOCOLS, INCLUDING NUMBER OF ATTENDEES, WILL BE OBSERVED AT THE SATELLITE LOCATIONS.

The public is invited to participate in the meeting at the Satellite Locations or through Zoom, WhatsApp, and Telephone using the following information:

- WhatsApp 876-878-1356
- Telephone 876-733-2461-6
- Zoom https://us02web.zoom.us/y89277552762?pwd=aEM1M3CvRE1LdHBXdHhoWmM5Uk5TQT09

iting ID: 892 7755 2762 iting Password: 532634

A copy of the Environmental Impact Assessment Report may be consulted at: I. National Environment and Planning Agency Documentation Centre, 10 Caledo-

- nia Avenue, Kingston 5 ii. Harmony Vale Basic School, St. Ann
- III. Bensonton Postal Agency, St. Ann
- lv. Emanuel Wisdom Centre, St. Ann
- v. Praise Center Church, St. Ann vl. Mount Waddy Primary School, St. Ann
- VII. Jeffrey VIIIe Basic School, St. Ann
- vill. St. Ann Parish Council. St. Ann's Bay. St. Ann.
- ix. National Environment and Planning Agency Website www.neoa.gov.im x. Conrad Douglas & Associates Limited Website www.odaeslech.com

All responses/comments should be sent to NEPA's Applications Secretariat Branch via email at applications@nepa.gov.jm or by mail to 10 Caledonia Avenue, Kingston 5.

For further information on the meeting, please contact the offices of Conrad Douglas & Associates Limited at 876-929-0023 & 876-929-8824 or information.

DAILY OBSERVER Wednesday June 9, 2021 twitter/jamaicachoerver PROPERTY AND STORY OF THE PROPERTY OF THE PROP



Jamaica Observer | Wednesday, June 16, 2021 | Business Observer | 40B

NSURANCE brokerage firm Caribbean Assurance Brokers Limited (CAR) said that it is anticipating increased growth across its operations despite setbacks since the novel coronavirus pandemic.

## CAB optimistic about growth despite COVID-19 setbacks

erocasts since the novel
and CEO Haymond Walker, the company to achieve growth
According to Chairman current expectations are for of some 20-30 per cent over the

next couple of months.
"Hased on the foundation

that we have set, I'm looking to what we have set, 'm looking to
growth of that nature rowards
the end of this year and moving
lino next year. We have spent
most of less year and this year
building the foundation to sort.
of springboard us to see the
level of growth that we anticlevel of growth that we for
Mayberry's investors briefing.

"We stema a to of money in-

mire so that if there is another COVID, at least our staff will be able to operate from home efficiently and effectively as if they were doing so from the office, as well as making sure that our clients are able to access information online and transact business via our e-cummerce plaiform which is especial to be launched by the end of the second quarter this year," Walker added.

CAR a lunior market forward to put our plans in

year," Walker added.

CAB, a juntor market company listed on the Jamaica stock exchange since March last year at the end of its first quarter period ended March 31, reported improved gross revenues of \$87.3 million.— Some 4.8 million or 5.8 per cens more than that of the same period in the prior year. This, the company said, was starth-in commissions across three of its foor divisions. Despite ed at the start of this month. of its four divisions. Despite an improvement in revenues, an improvement is revenues, along with other loyalty and discount/ value added increased net losses of some "laving set he-type of four-straint more than that of the previous year's quarter. CAB said that year, with the pandimic and the underperformance of the quarter stemment from in-

and the prospect for growth, Walter noted that the company

We spent a lot of money inwesting in technology to ensure
that we have robust infrastructhat we have infrastruction of there is another

the exclusive distributor for
the exclusive distributor for

Union Gold series plan activat-ed at the start of this month along with other loyalty and discount/ value added

creased expenses to improve taking over the position of CHO come next year January. I think



#### NOTIFICATION OF PUBLIC MEETING

Conrad Douglas & Associates Limited, as consultant with responsibility for the Environmental Impact Assessment for Proposed Bauxite Mining Operations, by UC Rusal Alumina Jamaica Limited (Windalco), in the Special Exclusive Prospecting License 524 (SEPL 524) Area, located in the Parish of St. Ann, hereby, invites you to the Public Participation on the said Environmental Impact Assessment, to be held on Thursday, July 1, 2021 at 5:15pm (Bogota or Local Time).

Due to COVID 19 concerns and protocols, the Public Participation will be an inter-active "Mixed-Virtual Public Meeting" that will be:

- Broadcasted live on Jamaica News Network (JNN)
- Broadcasted live on Power 106 FM
- Streamed live on Jamaica News Network's YouTube Page
- Streamed five on Television Jamaica's YouTube Page
- Streamed live on Zoom
- Streamed live to the following Satellite Locations

  Harmony Vale Baptist Church, St. Ann

  Jeffreyville Methodist Church, St. Ann, and

  - · Grierfield Church of God. St. Ann.

ALL COVID 19 PROTOCOLS, INCLUDING NUMBER OF ATTENDEES, WILL BE OBSERVED AT THE SATELLITE LOCATIONS.

The public is invited to participate in the meeting at the Satellite Locations or through Zoom, WhatsApp, and Telephone using the following information:

- WhatsApp 876-878-1356
- Telephone 876-733-2461-6
- Zoom https://us02web.zoom.us//89277552762?pwd=aEM1M3CvRE1LdHBXdHhoWmM5Uk5TOT09

Meeting ID: 892 7755 2762 Meeting Password: 532634

A copy of the Environmental Impact Assessment Report may be consulted at: i. National Environment and Planning Agency Documentation Centre, 10 Caledonia Avenue, Kingston 5

- ii. Harmony Vale Basic School, St. Ann
- iii. Bensonton Postal Agency, St. Ann
- iv. Emanuel Wisdom Centre, St. Ann v. Praise Center Church, St. Ann
- vi. Mount Waddy Primary School, St. Ann
- vii. Jeffrey Ville Basic School, St. Ann viii. St. Ann Parish Council, St. Ann's Bay, St. Ann
- ix. National Environment and Planning Agency Website www.neps.gov.im x. Conrad Douglas & Associates Limited Website www.cdaestech.com

All responses/comments should be sent to NEPA's Applications Secretariat Branch via email at applications@nepa.gov.jm or by mail to 10 Caledonia Avenue, Kingston 5.

For further information on the meeting, please contact the offices of Conrad Douglas & Associates Limited at 876-929-0023 & 876-929-8824 or info@cdaestech.com.



Oan Theoc (left), senior vice-president of invest nent banking at Mayberry Investments Limited, shares lens with Raymond Walke charman and CEO of CAB, at an investors' forum held on June 9.





Jamaica Observer | Wednesday, June 30, 2021 | International | 26

## Puppets, performers, parades for queen's 70-year reign

LONDON, United Kingdom (AFP) — Glant marionettes, fantastical beasts and circus performers will firm the contreplece of celebrations to
mark Queen Elizabeth II's 70 of celebrations that will also

A placinum jubilee pageant is due to take place on June 5

years on the throne, organ-lsers said yesterday. Include a military parade and church thanksgiving service.

Co-chairman of the organ-ising committee, Nicholas Coleridge said he expects the event to be a "glorious



Britain's Queen Elizabeth II smiles as she leaves after officially opening the new Argyll and Sutherland Highlanders' Museum at Stirling Castle, Stirling in Scotland on June 29, 2021, as part of her traditional trip to Scotland for Holyrood Week. (Plants: AFP)

NOTIFICATION OF PUBLIC MEETING

RUSAL

Conrad Douglas & Associates Limited, as consultant with responsibility for the Environmental Impact Assessment for Proposed Bauxte Mining Operations, by UC Rusal Alumina Jamaica Limited (Windaico), in the Special Exclusive Prospecting License 524 (SEPL 524) Area, located in the Parish of St. Ann, hereby, invites you to the Public Participation on the said Environmental Impact Assessment, to be held on Thursday, July 1, 2021 at 5:15pm (Bogota or Local Time).

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Meeting ID: 892 7755 2762 Meeting Password: 532634

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- III. Bensonton Postal Agency, St. Ann lv. Emanuel Wisdom Centre, St. Ann
- v. Praise Center Church, St. Ann
- VI. Mount Waddy Primary School, St. Ann
- vII. Jeffrey VIIIe Basic School, St. Ann
- VIII. St. Ann Parish Council, St. Ann's Bay, St. Ann
- tx. National Environment and Planning Agency Website www.nepa.gov.im x. Conrad Douglas & Associates Limited Website www.cdaeslech.com

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For further information on the meeting, please contact the offices of Conrad Douglas & Associates Limited at 876-929-0023 & 876-929-8824 or infoglicidaestech.com.

ommonwealth. commun
The British Government has Lockey.

already announced a four-day public holiday weekend to mark the reign of Britain's longest-serving monarch, who turned 95 earlier this

And post-COVID-19, Coloridge said it would be "an opportunity for the country to emerge united, re-energised and renewed" after the hardships of the novel coronavirus

"It will be a reopening for the UK, a moment of national purpose to be fun, joyous and entertaining." The Sunday pageant has been

designed to sell the story of "the second littrabethan Age", 500 years after the first, which was

noted for Shakespeare and the discovery of new worlds. Co-Chairman Michael Locket said it would recours:
"a time of rapid change and unparalleled progress" since the young Princess Elizabeth

became queen in 1952.
Unifice the sparsely populated streets of lockdown, when The Queen herself was forced to self-inolate at her Windsor Casele home, hundreds of thousands of people are expected to join the festivities. Performances will reflect the

post-war aumentsy of the 1950s, the 'Swinging Stotles' of rock and roll and space discovery, then the choice to join Surope

It will also include the "Rig Rang" digitisation of the City of London financial centre in the 1980s, and technological changes of the 1990s to the present day and the look to the future — particularly the need to tackle climate change. "Her Majesty has been our strength and our guardian in

celebration" of the monarch's good times and sometimes in service to the country and the bad times, across generations, Commonwealth.

Pageen master Adrian Evans told reporters the "explosion of extraordinary theatre, dance, music, carnival and street art" would be a "moment in

history".

As well as "monumental heraidic figures" reflecting royal history over 1,000 years, the parade will include a "hatch dragon" bigger than a dou-

bie-decker bus.

Another pupper, with a horse powered by 30 cyclises, will mark the 'most joyous moments' of The Queen's marriage to Prince Philip, who died in April aged 99, Evans said.

Ponies, racehorses, and corgis — the queen's fevourtse breed of dog — will represent "humour and distinctive littish quirkiness", and her lifelong

love of arimals.

The event will be privately financed by individual and corporate dottors and is expected. to cost between £10 million and £15 million, which Coloridge said was in line with previous

jubilises going back to Queen Victoria. The Queen's diamond jubiles in 2012 was marked by a river procession of 1,000 boats on the litwer Thames — the largest flostila in 350 years.

Beacons were also its across the country and a pop concert, held, featuring acts such as Take That's Gary Barlow and Robble Williams, Kylle Minogus, Elson John and Ed Sheeran.

Her golden jubilee 10 years earlier also saw a four-day-long weekend with street parties and another pop-concert. The Queen also toured Britisin, Jamaica, New Zealand. Australia and Canada





#### Appendix IV: Flyer (Invitation)



#### **FACT SHEET**



#### ENVIRONMENTAL IMPACT ASSESSMENT

The Proposed Mining of Bauxite in the Special Exclusive Prospecting License 524 (SEPL 524) Area

#### UC Rusal Alumina Jamaica Limited (Windalco)

Due to COVID 19 concerns and protocols, the Public Participation will be an interactive "Mixed-Virtual Public Meeting" that will be: Broadcasted live on: (1) Jamaica News Network (JNN) | (2) Power 106 FM

Streamed live on: (1) Jamaica News Network's YouTube Page | (2) Television Jamaica's YouTube Page | (3) Zoom From locations: (1) Harmony Vale Baptist Church, St. Ann, (2) Jeffreyville Methodist Church, St. Ann, and (3) Grierfield Church of God, St. Ann

Because of COVID-19 community spread only a limited number of residents will be accommodated at the above

locations. Please participate by:
Zoom: https://us02web.zoom.us/j/89277552762?pwd=aEM1M3QvRE1LdHBXdHhoWmM5Uk5TQT09
Meeting ID: 892 7755 2762 | Meeting Password: S3263+ | WhatsApp = 876 878 1356 | Telephone = 876-733-2461-6
Date: Thursday, July 1, 2021 | Time: 5:15 pm

The objective of this voluntary consultation meeting is to inform and educate members of the public, in particular residents of the surrounding communities, about the proposed project and, most importantly, for community members to state their issues and obtain clarifications.

#### What is the project about?

UC Rusal Alumina Jamaica Limited (Windalco) proposes to mine bauxite distributed in orebodies on lands in the Special Exclusive Prospecting License 524 (SEPL 524). The activities include establishment of haulage roads and excavation of bauxite bearing soil in the valleys between the hillocks on 496.7 hectares of land. This is 8.2% of the total SEPL 524 Area, inclusive of haul roads that must be constructed in order to gain access to and transport the bauxite ore. There will be no mining in the hillocks or forested areas of SEPL 524.

#### Where will the project be undertaken?

The SEPL 524 is located along the southern boundary of the parish of St. Ann. Communities within SEPL 524 include Friendship, Grierfield, Camperdown, York, Pleasant Hill, Concord, Bensonton, Drumily, Pennys, Harmony Vale. The SEPL is south of York Castle and Alderton, west of Jefferyville and Gibraltar, east of Fort George and north of Crofts Mountain.

#### When will the project be undertaken?

The proposed mining activity will be implemented in SEPL 524 over the next 25 years. The project is being detailed in 5-year Mining Plans, as required by the Regulatory Agencies under the Mining Act. The first five years will occur in the Penny Area.

The implementation of the project will commence after the granting of the relevant Environmental Permit and Lease by the regulators

#### Why is this project being undertaken?

The purpose of the project is to provide bauxite to supply Windalco's existing processing plant.

#### How will the project be implemented?

- 1. Land clearing for ore access and road construction (90 hectares to be cleared) over a period of 25 years (average approximately 3.6 hectares of land cleared per year)
- The mining of bauxite from the ore bodies within the 472.7 hectares of cleared land over a period of 25 years (averaging 18.9 hectares of land cleared per year).
- The transportation of bauxite to existing loading areas using haul roads to be constructed on 90 hectares of cleared lands over a period of 25 years.
- 4. The reclamation of the mined-out lands over a period of 25 years. Averaging approximately 20 hectares per year starting once the MGD approves areas for reclamation.

The areas where mining is completed will be rehabilitated as required by the Mining Act by Commissioner of Mines, Mines & Geology Division (MGD) the National Environment and Planning Agency (NEPA) and Jamaica Bauxite Institute (JBI).

The project will be implemented in a manner that will protect deep ground water recharge, human settlements along with agricultural activities, as well as important biodiversity, historical heritage resources and Forest Reserves that exists within the SEPL 524.

Windalco will continue to comply with all applicable laws and regulations and will fully observe the terms and conditions of SEPL 524 and any environmental Permit or Permits that may be issued by NEPA. Dust monitoring stations will be established in proximity to the mining areas. Dust suppression will be carried out using water for irrigation. Windalco will implement its Traffic Management Plan for this proposed project. Windalco has been managing the movement of bauxite by haul roads for the last 5 decades. The expertise, experience and resources required for proper traffic management for safety of the public and employees is integrated into Windalco's organization.



Telephone: (876) 929-0025/0023/8824/8823

Email: cdaestech@hotmail.com | info@cdaestech.com | conraddouglasnassociatesltd@gmail.com





#### **Appendix V: Sample Invitation Letters**

ONRAD DOUGLAS & ASSOCIATES LTD.

PROJECT PLANNING, DEVELOPMENT MANAGEMENT, ENVIRONMENTAL MANAGEMENT, **ENGINEERING & TECHNICAL CONSULTANTS** 

14 Carvalho Drive, Kingston 10, Jamaica, W.I.

Felephone: (876) 929-8824, 929-002325 Fax: (876) 960-2014.

E-mail: info@cdaestech.com, cdaestech@hotmail.com, conraddouglasnassociatesltd@gmail.com.

Website: www.cdaestech.com

June 14, 2021

The Honourable Robert Montague, MP Minister Ministry of Transport and Mining 138H Maxfield Avenue Kingston 10 Jamaica, W.I.

Dear The Honourable Montague:

Re: Mandatory Public Meeting - Environmental Impact Assessment for the UC Rusal Alumina Jamaica Limited (Windalco)'s Proposed Mining of Bauxite in the Special Exclusive Prospecting License 524 (SEPL 524) Area

On behalf of our client, UC Rusal Alumina Jamaica Limited (Windalco), we take pleasure in inviting you to a Mandatory Public Meeting on Thursday, July 1, 2021 commencing at 5:15pm on the Environmental Impact Assessment for the proposed mining of bauxite in the Special Exclusive Prospecting License 524 (SEPL 524) area.

Due to COVID-19 concerns and protocols, the Public Participation will be an interactive "Mixed-Virtual Public Meeting" that will be:

- Broadcasted live on: (1) Jamaica News Network (JNN) and (2) Power 106 FM
- Streamed live on: (1) Jamaica News Network's YouTube Page (2) Television Jamaica's YouTube Page and (3) Zoom
- From Satellite Locations: (1) Harmony Vale Baptist Church, St. Ann, (2) Jeffreyville Methodist Church, St. Ann, and (3) Grierfield Church of God, St. Ann

Because of COVID-19 community spread only a limited number of stakeholders will be accommodated at the above satellite locations. Please participate by Zoom ID: 892 7755 2762 | Password: 532634, WhatsApp (876-878-1356) or Telephone (876-733-2461-6).

This meeting is to inform, educate and more importantly, to obtain the views of the immediate communities on the proposed project.

We look forward to your attendance.

With kind regards.

Yours sincerely,

Conrad Douglas & Associates Limited

CONRAD DOUGLAS & ASSOCIATES LIMITED

Conrad Douglas, CD, PhD

Executive Chairman & Principal Consultant

Quality Service at its Best

DIRECTORS: DR. CONRAD G.C. DOUGLAS, CD. B.Sc., Ph.D., M.J.I.M., M.J.I.E., Executive Chairman & Principal Consultant \* LYNDEN NUGENT, B.Sc. Chem. Eng. (Hors), MBA (Finance), Dip. Man. Studies, M.J.I.M. MELISSA M. DOUGLAS, BA (UVII), LLB. (LOND.) A.K.C. (LOND.) A.K.C. (LOND.) LEC \* DORAN BECKFORD, BEng. (Chemical), MBA (Bending & Finance), Dip. Bus. Admin.



#### **Appendix VI: Non-Technical Document**



Non-Technical Summary

#### NON-TECHNICAL SUMMARY

UC Rusal Alumina Jamaica Limited (Windalco)

&

Conrad Douglas & Associates Limited

Mandatory "Mixed-Virtual" Public Meeting for the Environmental Impact Assessment for the
Proposed Bauxite Mining in the Special Exclusive Prospecting Licence 524 (SEPL 524) in
the parish of St. Ann

#### **Project Description**

UC Rusal Alumina Jamaica Limited (Windalco) has made an application to the National Environment & Planning Agency (NEPA) in keeping with the requirements of the Natural Resources Conservation Authority (NRCA) Act of 1991, the regulations of 1996 and the amendments of 2015. An Environmental Permit application was submitted to the National Environment and Planning Agency (NEPA) and subsequently NEPA requested that Windalco carry out an Environmental Impact Assessment (EIA) on Special Exclusive Prospecting Licence 524 (SEPL 524) located in the parish of St. Ann.

The project proposes to exploit bauxite reserves over a twenty-five (25) year period in SEPL 524 (see Figure 1 below). The area of SEPL 524 represents a total of 6,839.90 hectares. Of this SEPL 524 area, 496.7 hectares is proposed for bauxite mining. The area to be impacted by mining activities and associated infrastructure, represents 8.2% of the land area containing orebodies. The 8.2% also includes the haul roads that must be constructed in order to gain access to and transport the bauxite ore.

The mining activities proposed for the 8.2% of the total area of SEPL 524, represents a temporary change in land use from predominantly pasture and subsistence agriculture. There is also some human settlements, which contain residential structures in the areas proposed for bauxite mining. After bauxite mining takes place the exhausted bauxite mines or pits will be rehabilitated and dedicated to various uses such as a suitable vegetation cover, pre-mining, housing, agriculture, greenhouses and water storage as determined in the rehabilitation process under the Regulations of the Mining Act by the Commissioner of Mines.

There are bauxite deposits in SEPL 524, which are valuable mineral resources required for providing feedstock for sustaining Windalco's alumina production. Windalco's export earnings from the sale of alumina forms a part of the world's vertically integrated aluminum industry. This is a major contribution to maintaining Windalco's operations and a critically important contribution to Jamaica's economy at the macro and micro economic levels, and society overall. Importantly, it earns foreign exchange, which contributes substantially to gross domestic product (GDP) growth, employment and the development and operations of several social and economic services.

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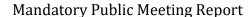


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RUSAL

Non-Technical Summary

In essence, the objective of the scientific investigations carried out in conducting this EIA is to inform a major decision concerning the critical balance, which exists between the management of a finite non-renewable mineral resource of major economic importance (bauxite) and potential impacts on important renewable resources. Both the finite non-renewable and renewable resources are important in supporting and sustaining the local and regional bio-physical and socio-economic future of Jamaica. Both resources may be carefully managed using state-of-the-art best mining practices and environmental management methods and technologies.

General Approach & Methodology

Research and consultations for this EIA commenced in June 2019 and continued up to May 2021 (additional Voluntary Stakeholder Consultations). The general approach and methodology involved a combination of literature reviews, consultations, remote sensing and scientific field investigations, inclusive of ground truthing using state-of-the-art approaches and methodologies covering all aspects of the agreed TOR for the EIA.

**Project Description** 

The project is located in SEPL 524 in the parish of St. Ann (See Figure 1-1 below) and is aimed at providing bauxite feedstock for Windalco's alumina production plant located at Ewarton, St. Catherine. The preponderantly gibbsitic bauxite reserves in the adjacent SML 162 is currently being mined by Windalco. However, at the present rate of alumina production, the forecast is that this will be exhausted in 2021, thereby requiring the mining of SEPL 524 to commence to provide feedstock for the Ewarton Works Plant.

Legislation and Regulatory Consideration

The regulatory framework has been exhaustively and critically reviewed. This is reported on in detail in section 3.0 of the EIA report. It covers international treaties, protocols and conventions to which Jamaica is signatory, as well as, all relevant Jamaican laws and standards concerning bauxite mining and environmental management.

The environmental management study and EIA report focuses on the mineral, bio-physical, socio-cultural, economic and archaeological heritage resources within the SEPL 524 area. The mining of bauxite, which is a non-renewable resource, will only commence in SEPL 524 upon issuance of regulatory approvals and permits.

Although the EIA study takes into account sub-regional, regional and national matters of relevance, the specific environmental setting and baseline is essentially confined to the SEPL 524 area.

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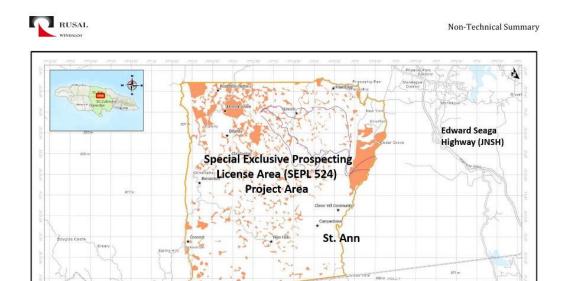


Figure 1: Project Location Map

Environmental Impact Assessment Windalco - SEPL 524 Project Map

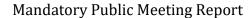


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St. Catherine

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#### Description of the Environment

#### **Geology and Geomorphology**

SEPL 524, located within the Dry Harbour Mountain Hydrologic Basin and the White River Sub-basin, has the St. Ann-St. Catherine Parish Boundary as its southern boundary and is underlain by limestone members of the White Limestone Group. Bauxite deposits across the island occur atop the White Limestone Members as blanket deposits with interfingering into fissures, fractures and solution hollows in the limestone. There are eleven (11) caves listed by the Water Resources Authority (WRA) as being within the SEPL 524 area.

#### Hydrology

Groundwater forms the major source of water resources in SEPL 524. There is no major surface water features within the boundary of the area. The high permeability of the limestone members that outcrop in the SEPL, enhanced by the results of the tectonic activity and karstification allows for the rapid infiltration of rainfall the main source of recharge to the limestone aquifers.

#### **Biological Environment**

The biological environment contains important floral and faunal resources which constitute high levels of biodiversity. In general, the area is characterized by a series of forested hillocks and grass covered depressions that have secondary growth, which results from human activity within these depressions. Forty-one (41) species of trees were identified within SEPL 524 of which one (1) was categorized as vulnerable based on the International Union for Conservation of Nature (IUCN) list. Seven (7) species of bromeliads, three (3) species of aroids, four (4) species of orchids, eleven (11) species of ferns, twenty-three (23) species of herbs, twenty-one (21) species of vines, twenty-two (22) species of shrubs and five (3) species of grasses were identified in SEPL 524.

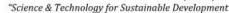
Forty-seven (47) species of birds were observed during the study of which one (1) is considered near threatened and one (1) vulnerable based on the IUCN list. All the birds observed were on the periphery of the grassland or within the highly vegetated hillocks. 49% are insectivorous, 20% herbivorous, 18% omnivorous, 9% frugivorous and 4% granivorous. Seven (7) species of anoles and five (5) species of amphibians were observed during the study. Two (2) of the amphibians identified are considered endangered based on the IUCN list. Nine (9) species of gastropods were observed and identified, while four (4) species were observed but not identified in SEPL 524. Eight (8) species of bats were identified within SEPL 524.

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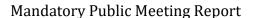
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#### Socio-Economic Environment

Comprehensive socio-economic and land use surveys were undertaken in SEPL 524 and surrounding areas. There are no hospitals or fire stations in the study area. Although access to electricity has increased over the previous census by 6%, the use of electricity in the project area is significantly below national and parish levels, at approximately 82% of the households. The use of kerosene as a source of lighting in the area is conversely higher than the national average.

#### Archaeological Heritage

The historical heritage of SEPL 524 has been investigated in detail by the Jamaica National Heritage Trust (JNHT). "A total of 306 heritage site were captured in the field survey. They represent remnants of our diverse ancestral heritage including the Amerindians (Taino), Europeans and Africans, Apart from historical cut stone water tanks, surficial archaeological assets are sparse in the depressions. The overwhelming majority of significant historical architecture, archaeological sites, caves, and modern communities throughout SEPL 524 are found on hillocks and limestone ridges."

#### **Public Participation**

The Voluntary Stakeholder Consultations, which CD&A normally carries out in keeping with international best approaches and practices, were severely constrained as a result of the rapidly spreading COVID-19 pandemic in Jamaica. In this regard, it was critically important to comply with the requirements of the Disaster Risk Management (Enforcement Measures) Order, 2020. For this reason an alternative methodology for Voluntary Public Consultation meetings were employed using telephone calls, zoom meetings, and limited face-to-face meetings with key stakeholders within the SEPL 524 and sphere of influence.

The main concerns that were raised with the political directorate, community stakeholders and institutions were as follows: Social Intervention, Farming, Water Resources, Relocation and Security of Land Tenure, Changes in Land Use, Dust Nuisance and Mining.

#### Impact Identification and Assessment and Analysis of Potential Impacts

The potential impacts on the physical, biological, social-economic and heritage resources were extensively identified and investigated. The critical potential impacts identified in the study are mainly the predicted changes in the topography and land use resulting from the proposed bauxite mining operations. There will be a temporary reversible loss of habitat associated with the construction of these haul roads, as well as, changes in the landscape aesthetics. Under very dry conditions there will be the potential for the formation of fugitive dust from re-entrainment of road dust during transportation of

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the mined bauxite. There is also a low potential for the loss of biodiversity and destruction of heritage sites within SEPL 524.

#### Impact Mitigation

Mitigation measures on the following are proposed in Section 8.0 of the EIA Report: Aesthetics, Geological and Geotechnical, Water Quality, Surface Water Hydrology and Groundwater, Air Quality, Climate Change, Noise, Terrestrial Wildlife Resources, Terrestrial Vegetative Resources, Employment & Worker Health & Safety, Dislocation and Compensation, Heritage Sites and Traffic.

Potential negative impacts may be avoided or mitigated. These are illustrated in the impact mitigation tables and matrices in sections 7.0 and 8.0. In addition, all activities are transient. Temporary mining activities will be carried out at various locations within SEPL 524. The general progression is from East to West. This depends on the quality and quantity of the bauxite. Details of five-year mining plans will be submitted to the regulators at least 1 year before relocation to the new area. All required mitigation for environmental protection will therefore be effectively planned as the mining progresses to the satisfaction of the regulatory agencies.

The mitigation to be employed by Windalco will include, but not be limited to: Haul roads will be properly maintained; Special emphasis will be placed on dust suppression especially during dry periods to reduce fugitive dust formation and dispersion during bauxite transportation; Natural drainage will be maintained as far as practicable; Portable chemical toilets will be installed at the ore bodies; Silencers or mufflers on construction equipment will be properly fitted and maintained; The footprints of the operations will be strictly maintained to that which is unavoidable; Protected, rare, threatened or endangered species of plants identified will be removed and relocated to areas that will not be affected by the operations or at Windalco's greenhouses; Windalco's Environmental Health and Safety policies and procedures will be implemented in compliance with the laws of Jamaica; In the event that settlements will be impacted, Windalco will employ its relocation and/or compensation plans; In the event that there is an archaeological find, Windalco is obliged to act in keeping with the JNHT's Act. Intersections will be actively monitored and signs installed, where necessary.

The vast majority of the hillocks within SEPL 524 will not be impacted from mining activities. Most haul road construction will be confined to the transition zones. Only 8.2%, or less (i.e. 496.7 hectares), of the land area within SEPL 524 will be impacted over the estimated 25- years life of the project.

Most of these potential negative impacts are not high in intensity, magnitude and duration and are reversible, with the exception of the changes in topography, which in various instances are irreversible.

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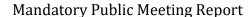
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With respect to any identified sinkholes, Windalco will be guided by best practices, precedence and the directives of the relevant regulatory agency in establishing appropriate setbacks.

#### Analysis of Alternatives

Four (4) alternatives were analysed during the preparation of the EIA. These include: (1) No Action Alternative, (2) The Proposed Mining Activity, (3) Location and (4) Technology. The proposed mining activity is the preferred option of the alternatives assessed.

#### **Environmental Monitoring and Management**

State-of-the-art environmental monitoring, evaluation and management methods will be used by Windalco prior to and during the entire mining operations. The objective is to ensure that compliance is maintained within the regulatory framework and its own internal policies and standards. The internal environmental management resources of Windalco will be augmented with the services of external consultants, and where appropriate in consultation with the Community Councils.

Creative conservation strategies will be employed using various universally accepted strategies for the protection of the area and restoration of habitats. Opportunities for water storage and agriculture will also be considered.

#### Conclusions

The mining of bauxite represents a temporary change in land use. The potential impacts identified can be effectively mitigated.

Pasture lands constitute most of the lands to be temporarily disturbed. It has been demonstrated, for more than 60 years, that rehabilitated bauxite lands are excellent for use as pastures in cattle rearing and other agricultural activities. In fact, this has formed the basis, over several decades, for supporting some of the largest dairy and beef cattle herds in Jamaica. Jamaica Is internationally recognized as having the largest and best herds of red poll cattle throughout the world. In addition, Windalco presently has a cattle and a tenant farming programme on mined out lands, as part of their agricultural and commercial operations.

Conrad Douglas & Associates Limited "Quality Service at its Best"

CD\*PRJ 1454/20
"Science & Technology for Sustainable Development





#### Appendix VII: NEPA Approved Agenda



## **AGENDA**



# UC Rusal Alumina Jamaica Limited (Windalco)

## **Conrad Douglas & Associates Limited**

Mandatory "Mixed-Virtual" Public Meeting for the Environmental Impact Assessment for the Proposed Bauxite Mining in the Special Exclusive Prospecting Licence 524 (SEPL 524) in the parish of St. Ann

Chairperson: Ms. Fae Ellington

- 1. Call to Order & Purpose Chairperson
- 2. Prayer Rev. Stanley Griffin, Jeffreyville Methodist Church
- 3. Welcome & Introduction of Panel Chairperson
- 4. Statement by the National Environment & Planning Agency (NEPA)
- 5. Presentation
- Report on EIA for Proposed Bauxite Mining in the Special Exclusive Prospecting Licence 524 located in the parish St. Ann

Dr. Mark Richards **Technical Director** Conrad Douglas & Associates Limited

- 6. Questions & Answers
- 7. Adjournment

**ENVIRONMENTAL MANAGEMENT CONSULTANTS** 

Conrad Douglas & Associates Limited Telephone: (876) 929-0025/0023/8824/8823

Email: cdaestech@hotmail.com | conraddouglasnassociatesltd@gmail.com

Conrad Douglas & Associates Limited



## Appendix VIII: Register - Harmony Vale Baptist Church, St. Ann

Mandatory "Mixed-Virtual" Public Meeting for the Envir Assessment for the Proposed Bauxite Mining in the Spanies of the Proposed Bauxite Mining in the Spanies of the Proposed States o	onmental Impact pecial Exclusive sh of St. Ann
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- and smith 29.3 community member acrie	876 396 8902
Mystle Smith 29.3 community member	876 429 9270
3 Kruss- Ann M. Richards Windalco	876 564 3660
a Edmond James 24.2 Minamico	876 283 9939
5 Ashley Payne Windalco	876 499 1211
1 Egor Leshchenko Windalco	876 499 1213
T Dennis Mc Gaw Windalco	876 387 7469
* Winston Riley 29.4 community member	876 346 7072
Winsten Riley 29 4 community member of cynthia Cunning ham community member	876 458 3697
n Diana Smith 29.3. community member	876 367 8403
" Claude Bascoe community member	818 872 3209
12 Rosemanie Berbick 28.3 Community member	876 373 8256
13 Ewan Berbick 29.7 community member	876 296 1134
4 Michelle Ribey 29.3 community member	876 490 6488
15 Levaughn Smith 29.3 community member	876 589 5584
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A TACA E ACCOUNT	876 889 3099
17 Dabo Francis 29.4 Windalco	876 790 0051
18 Lazursher Battise 39 3 community member	816 571 3938
19 Horace Israel 29.3 community member	876 428 4209
20 Nekeshia Jackson 29.3 community member	876 446 2662
21 Paul Smith 29.9 community member	876 445 6148
22 Rupert Smith 29.8 community Member	
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28 Michael Smit to a	376 471 6065
TO B. South and	76 398 1442
30 Marie James 28.7 community member 6	
31 Natkin Cole 28. 7 commentes member 6	
32 Kiara Miller 28.6 community member	76 853 2438 NENE
38 Elsworth Phillips 28.3	
1 minutes 8	76 285 6496



Nome TEM	Affiliation	Contract (#
34 Cloyd Bascoe 28.5	community member	816 815 6806
35 Delroy Brown 28.4	community member	816 402 1239
36 Maxwell Drumminds 28:3	community member	876 365 1964
31 Shery/ Poorman 28.4	community member	876 867 21 16
38. Evadney Berbick 27.6		876 895 1436
89 Shawayne Williamson 27.		8-16 347 2641
40 Howard Cole 27.5		876 438 9813
41 Nichael James 26-7	community member	876 588 6681
42. Rev. Lloyd Richards 36.4	Baptist Minister	816 426 7798
48. Noel Thompson 26.5	1010	876 312 4282
44 Amouy Hemmings 26.4	Quest Security Services	876 335 2525
45 Lacey - Ann Royes 26.5	Quest Security Services	876 330 2950
46 Khara Richards 26.4		NONE
47 Ewan Smith 263	Community member	876.305 1059
48 Kenneth Smith 262	community member	876 854 3782
49. Stanley Grant 26:3	community member	816 446 3594
50. Ken Jones 36.1	community member	876 508 4498
51 Gastin Smith 25.6	community member	876 849 5694
52. Michael Cole 25.5	community member	876 359 1200
53 Orane Johnson 35.5	community member	876 460 8700
54 Joseph Mornis 25.4	community member	876 559 7459
55. Devon Longmores 6	community member	876 389 1754 876 389 1754
se Dalfie Livermore 24.7	community member	none
51 Arthur Campbell 34.3	community member	876 842 0949
58 George Henry 24.4	community member	876 791 5148
59. Helliot Smith 24.8		876 355 5151
60 Michael Tavanes 24.5	Community member	87/6 538 9980
61. Lynch Bascoe 23.7	community member	876 851 2507
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## Appendix IX: Register - Jeffreyville Methodist Church, St. Ann

Assessment for the Proposed Bauxite Mining in the Special Exclusive Prospecting Licence 524 (SEPL 524) in the parish of St. Ann		
Prospecting Lice	Affiliation 1	Contact # 1
Name	Cibrallar Communit	876-421-2627
Lorna Henry	Clover Hill "	1 224 - MASS +
Carol Green	Clover Hill Community	876 - 391-8165
Beverly Richmond	Quest Society Bervice	876-537-4564
Anthony Wellington	Gibrallar Community	876-865-3045
Rosalie Plunkett	Grienfield "	876-866-0233
Verlino Menty	Clover Hill Community	
Mekin Mitchell		876-402-6096
Latoya Foreman	Windalco	
Norbent-Clarke	Quest Security Service	876-577-5023
Hoyd dake	Windalco	
Lancerry Mornis	Rusal Windalco	876-577-5034
Monique Crange	Rusal Windolco	876-550-3104 1
Edward Botson	RJR Cleaner	876-405-6232
Carlington Barker	JNN	876-599-0779
Artie Russell	Gibrallar Community	
Juy Evans	Gibraltar Community	
Joy Wilson	Gibraltan Community	876-334-1213
David Calbon	n n	
Prudence devis	Gibrallar Community	876 - 831 - 3903 (
Stanley Johnson	Clover Hill Community	876-431-5624
Sergea Kostyuk	Rusal Windalco	876-260-0507
Moxine Allen	Gibraltar Community	876-460-\$1563
Georgia Evans	4 1	876-417-0722
Gwendolyn Foreman	Gibraltar Community	876-432-9317 .
Albert Evans	4	876-466-9369
Lotoyce Cambbell	Gibraltan Community	876 - 342 - 3119
Monique Mallray	un	811 990 1252
Tracey Ann Martin	Closes Hill Community	876 - 248 2521
Reviece Williamson	'Il II	876 - 287-6839
Tashanya Traila	Gibrallar Community	874 201 6037
Ansel Forence	Cibrallas Community	816-244-0888
Annalla Cara Hall	Cibrallar Community	816-412-0097
Brigala Green-Tall	Gibrallar Community	876 - 487 - 2622
Burion Williams		876-844-1814



	-17	Control Alliliation   Contact H
horas	Name	Gibrallan Community 876-392-8281
+	Elsie Fullerton	Gibrallar Community 876 - 577-1598
100	Hubert Henry	Clover Hill Community
>	Everald Haye	Clover I'm commune
+	Vincent & Harvey	Gibrallar Community 876 535-4184
5	Keith Thompson	N CARLO CONTRACTOR OF THE CARL
3	Cla Laceyam Roys	Pact 212 11289
	Noel Thompson	Cibrallar Community 876-966-7532
	Stock Loney	4 4 876-547-6677
	Natoya Johnson	
3	Beverly Loney	Gibralan Community 876-359-8859
+	Rosian Tackson	Cubrallar Community -
	Nathan Jackson	4 4 876-480-0912
2	Heather doney	Clover Hill Community 876 384-0399
	Klichael Klills	100er All Community 316 - 859 - 9927
-	Agatha Whyte	Gibraltar Community 876-859-9927 Gibraltar Community 876-5719
		4 4 876-354-3553
	Sharon Stephens	Gibrallar Community 876-541-448
-		4 1 876-852-0702
	Cabert Campbell	Gibrallar Community 876-501-2859
	Pora Whyte	u " 876 355-1268
4	Audrey Barmett	-4
	Menny Evans	Gibrallar Community - 876-825-4303
-	Ermine Taylor	
-	Desmond Paylor	Cibrallar Community 876-294-4502
-	Hudrey Malcolm	Rusal/Windalco 876-873-5794
1	Norton Cooper	
	Alma Chambers	Gibrallar Community 876-842-2389 427-5882 4 876-810-5872
	Roshine Alexander	
	Lenworth Gardener	Gibraltar Community 876-810-5872
	Sandra Dick	u 1 876- 443-9431
		Carbrallar Community 876- 448-6183
	George Lewis	n 876-317-1136
	Camille Long	Calbrallar Community 876-803-8002
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**	I April Is a	Contact It
Name	Affiliation	- 1 5514-
Rena Braham	Csibrallar Community	876-377-8161
Edward Allen	9	876 540 10 72
Ovane Hinds	Clover Hill a	810 270 (3 /2
Deron Samoek	Cribialtor Community	876 419 6262
Gedaltin Roberts	Clover Hill Comunit	876-409-1857
Paulette Samuels	Gibrallar Community	876 493-0777
Malay Campbell	9 4	876 - 896 - 9770
Chancel Barnett	Gibrallar Community	876 - 899 - 7960
1 Shelmay Samuels		876-772-1902
Shanaya Brown	Gibrallar Community	876 - 872 3836
· Sashagay Allen	9 9	876 - 342 - 0239
Ticole Peart	Cibrallar Community	876 - 314 - 8585
& Burny Lawrence	4	876-359-8109
( Leith Bailey	Cibrallar Community	876-458-8750
Meloney Morris	4 4	876 - 889 - 8967
- Rosemanie Henry	Gibrallan Community	876 856-1395
Caleesea Campbell	4	90-0130
. Lelsey Clunie	Cibrallar Community	876-80 7410
Goin Clurie	quest Security Service	876 - 378 - 0061
Oshane Khynie	Quest Security Service	876-214-2533
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## Appendix X: Register - Grierfield Church of God, St. Ann

Name	Enp	Affiliation	Contact #
GERANINE WHITE	36.3	The state of the s	876-494 5810
DATESHA KIRKARAN)	33.5		876 517-1918
Romie CLARKE	35.4	PHOEMA PARK	876-885.0140
Karlyan Harvey	35.9	Grierfield	876-217-0084
Reneisa Davis	35.7	Phoenix Park	876-852-1118
Kenice Harvey	35.8	Greefield	876-436-7702
Kaiseion Taylor	35.6	Phoenix Park	876-782-502
Weston Morris	35.3	Grierfield	896-225-0363
Venièce Gordon	35.6	Phoenix Park	876-436-8010
Noel Thompson	35.7	Quest Security Service	
Colbert Douglas	35.7	Grierfield	876 - 897 - 5541
Delroy Kelly	35.7	Moneague	876-361-8257
Briton Fullerton	135.7	Grierfield	876-409-7175
Ferron Cooper	35.7	tind Lincoln	876-834-4011
C. Scarlet	357	Friendship	876 - 877 - 1023
Noaman Hall	35.5	Grierfield	876-342-3718
Nikita Arkhangels		klindalco	876-583-0348
Rherneal Ricketts	35.7	Moneague	876-973-8423
Clement Daniels	35.5	Grierfield	876-386-6449
Chomain Braham	35.7	Grierfield	876-450-7329
Alberneal Ricketts Sr.		Moneague	876-861-4055
Garth Estephens	35.7	Moneogue	876-844-7063
Daviany Llyle	35.3	Grierfield	876-369-8966
3rica Elvery	35.5	Grierfield	876-404-3304
Ruth Thompson	35.3		876-360-8188
Anthony Murray Jaqueline Haward	35.3	Moneague	876-842-1191
June Stoneth	35.3	Grierfield	876-331-4164
Muriel Bogle	35.7	Grierfield Grierfield	876-368-4562
Lebert Nexiby	35.7		876-575-4337
Agatha Newby Anieta & Rose	35.7	Clover Hill	876-362-0047
And & Boca	35.7	Clover Hill Phoenix Park	876-409-1219 876-419-5842



Nome Affilication	Contact 14
Dexter James 35.6 Grienfield	876-
Gilbert Morle 359 Fincoln	876-
Paul Stewart 35.9 Lincoln	876-365-4077
	876-847-9894
Hyacinth Compbell 356 Grierfield	876 - 807 - 8229
Lamon Campbell 35.7 Grierfield Kemay Campbell 35.8 Grierfield	878-412-1778
hemory Compbell 35,8 Grierfield	
Omoria Gordon 355 GrienHeld	876 -

#### **Appendix XI: Presentation**

## The Proposed Mining of Bauxite

in the

# Special Exclusive Prospecting License Area (SEPL 524)

located in the parish of

St. Ann

by

## UC Rusal Alumina Jamaica Limited (Windalco)

#### MANDATORY PUBLIC MEETING

Presentation by: Conrad Douglas & Associates Limited, Environmental Management Consultants

Date: Thursday, July 1, 2021 | Time: 5:15pm

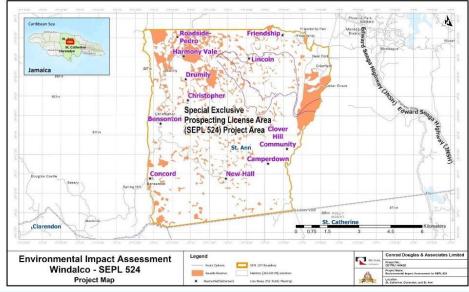


## **Table of Contents**

- Introduction
- Description of the Proposed Project
- Policies, Legislation, Regulations and Standards Considered
- Description of the Environment Baseline & Setting
- Analysis of Potential Impacts
- Impact Mitigation
- Analysis of Alternatives
- Environmental Monitoring and Management



## Location of Special Exclusive Prospecting License Area (SEPL 524) Project Area



- SEPL 524 area comprises sections of: Southern St. Ann.
- Townships within the area are listed below:
  - Harmony Vale
  - Roadside-Pedro
  - Lincoln
  - Drumily
  - Christopher
  - Bensonton
  - Friendship
  - Grierfield
  - Concord
  - Clover Hill
  - Camperdown
  - **New Hall**

## Description of the Proposed Project

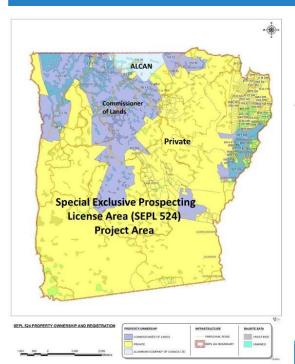
- The proposed mining activities will be done in 5-year cycles for twenty-five (25) years, based on approved 5-years Mining Plans. The project will provide bauxite feedstock to sustain Windalco's operations for the production of alumina at its Ewarton Plant.
- The orebodies and haul roads comprise 8.2% or 496.7 hectares of the total 6,839.90 hectares of SEPL 524.
- The maximum production capacity is ~2,100,000 tonnes per year of bauxite.
- There will be employment opportunities for residents in the surrounding communities as the mining progresses.
- Since the onset of the COVID-19 pandemic, the bauxite-alumina sector became the number one foreign exchange sector in Jamaica's economy.



## **Project Description**

The activities involved in the operations phase include the following five (5) main components or steps:

- 1. Settling of issues concerned with mining rights (Windalco already owns ~2% of the mining rights in SEPL 524)
- 2. Haul road construction for access and transportation of the bauxite ore
- 3. Stripping and Storage of an average of 24 inches of topsoil for use in rehabilitation activities after mining
- 4. Mining
- 5. Rehabilitation of Orebodies and Haul roads



## Land Description/Rights

- The SEPL 524 area comprises private and government holdings.
- Privately owned shown in yellow.
  - · Government owned in purple
- If mining rights are required for any privately owned land, Windalco is obliged to pay fair and reasonable compensation to the owner or occupier for disturbance of surface rights, any damage to the land, affected crops and buildings.
- On completion of mining, the land will be rehabilitated in accordance with applicable laws and returned to the landowner or occupier.



# Policies, Legislation, Regulations and Standards Considered

- A Special Exclusive Prospecting License is granted by the Minister with portfolio responsibility for mining and the holder of a Special Exclusive Prospecting License shall have the exclusive right to prospect, for the mineral(s) specified in the license on lands within the area of the license
- Seven (7) relevant international treaties and protocols were reviewed – e.g. Agenda 21
- Five (5) relevant national policies were reviewed e.g. Vision 2030 and Policy for the National System of Protected Areas, 1997
- Twenty-five (25) pieces of relevant national legislations were reviewed – e.g. NRCA Act, 1991, WRA Act and Forestry Act
- Bauxite mining will only commence in SEPL 524 upon issuance of regulatory approvals and permits.



Policies, Legislations, Regulations and

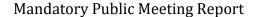
■ Legislations

# Description of the Environment Baseline & Setting

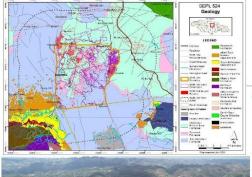
 The following have been studied in detail keeping with the requirements of the agreed Terms of Reference (TOR) issued by NEPA:

68%

- Biological environment
- Physical environment
- Social environment
- Economic environment
- Cultural environment, inclusive of historical and archaeological heritage
- The area is sparsely populated.
- The SEPL 524 area is not pristine and has been subjected to various human activities at present and over the years. These include, for example: establishment of plantations in the early 1700s, hunting, human settlements, agricultural practices and land clearance.









# Description of the Environment Cont'd Geology and Geomorphology (Rocks, Soils and the shape or formation of the area)

The following members of the White Limestone Group outcrops within the boundary of SEPL 254. In chronological order they are-

Troy-Claremont Limestone Formation

Somerset Limestone Formation; and

Walderston-Browns Town Limestone Formation.

 Rolling knolls, hillocks and valleys are generally characteristic of limestone that has undergone karstification.

 Elevations range from about 400 m (1200 ft) – 700 m (2100 ft) amsl (above mean sea level)

There are intersecting fault lines in the SEPL 524 area

# Description of Bauxite

Bauxite is the commercially viable ore for aluminum production.

The moisture content of naturally occurring bauxite ranges from about 20% to 25%.

Bauxite, when wet, is highly cohesive, difficult to handle and does not flow easily. The aluminum bearing metallic mineral resources were discovered by Sir Alfred DaCosta in the late 1940's because of their natural infertility.

Reportedly, Sir Alfred's curiosity was piqued when bananas did not flourish on his farmlands.

The English confirmed the Government Chemist's findings and in submitting their report essentially stated that: you may not be able to produce bananas on these lands at this time, however you will be able to produce airplanes instead.

This marked the birth of Jamaica's bauxite industry as it ushered in a period of intensive exploration activities followed by rapid growth.

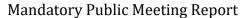


# 'RED GOLD' GOING FOR FIRST TIME

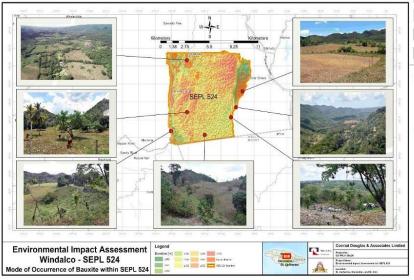
Bauxite ore loading starts at Ocho Rios

Source: The Daily Gleaner, May 28, 1952









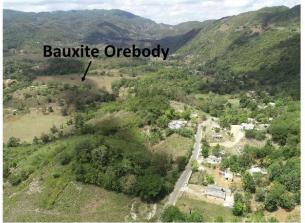
Description of the Environment

Mode of Occurrence of Bauxite

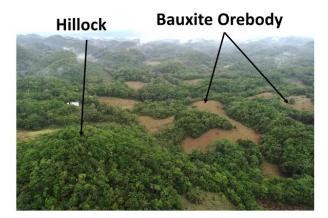
- The bauxite deposits are located in the depressions between the hillocks.
- The low-lying deposits of bauxite supports mainly grassland/shrub vegetation and agricultural activities.
   They do not generally support the growth of large trees.

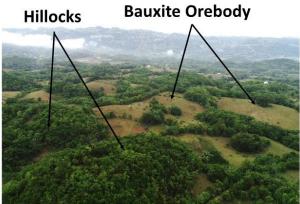
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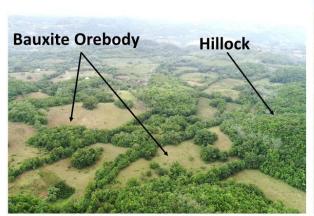
















## Description of the Environment Geology and Geomorphology

 Fourteen (14) documented caves and sinkholes are within the boundaries of SEPL 524



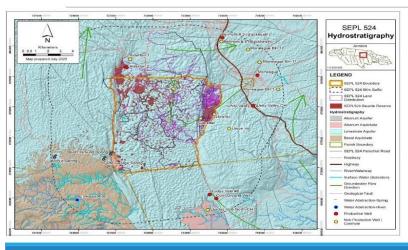
- Eleven (11) documented caves are within 5 km of the boundaries of SEPL (WRA)
- Sinkholes do not coincide with orebodies



Location of Grierfield Cave | 1: Showing location within hill and 2: showing view of Clover Hill cave

## Description of the Environment Hydrology/Hydrogeology (Water resources)

XXXI



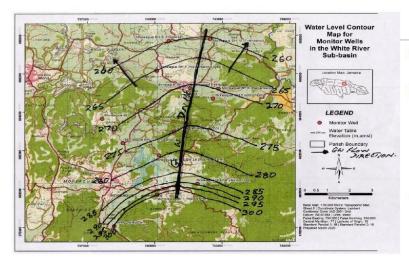
- There are no rivers or streams (surface flow) within SEPL 524.
- SEPL 524 sits atop a limestone aquifer.



- Groundwater flow towards Rio Bueno passes subsurface (beneath) the area of SEPL 524 at a depth of 100 meters.
- It is highly unlikely that the aquifer in the Rio Bueno Catchment/subbasin will be impacted if the ore bodies within SEPL 524 are mined.



Description of the Environment - Hydrology/Hydrogeology (Water resources)



- Groundwater flows to the north
- In the upper watershed areas where SEPL 524 is located, the depth to groundwater is expected to be close to 100 metres (300 feet).
- Bauxite is not found at the depth of groundwater in SEPL 524.

17

## Description of the Environment

## Air & Noise Quality

- No receptor in ambient air showed concentrations in excess of the Jamaican AAQS for Total Suspended Particulates (TSP) or Particulate Matter of Size 10 microns and less (PM<sub>10</sub>) within SEPL 524
- Air Dispersion Modelling showed that the proposed activities at the ore body mining sites in SEPL 524 could cause localized high concentrations for TSP and PM<sub>10</sub> that declined by at least 80% within 100 meters, of the active orebody. (See Volume III of the EIA Report)
- The proposed mining and hauling activities within SEPL 524 would result in ambient concentrations for TSP and PM<sub>10</sub> at a maximum of 50-60% of the ambient air quality standards, including background concentrations, at locations outside of the ore body mining sites.
- The readings of all noise measurements were within the NEPA standard of 75db.
- No vibration was detected. All measurements recorded 0 m/s<sup>2</sup>.





## Description of the Environment Biological (Plants and animals and their inter-relationships)

- The general area may be described as disturbed forest with three (3) major habitat types within SEPL 524. These are:
  - i. the elevated forested areas and
  - ii. the open bauxite bearing grassland depressions.
  - iii. Open bauxite bearing valleys
- In comparison with the open bauxite bearing grassland depressions and valleys, the elevated limestone hillocks have a high level of biodiversity.

Plant Type	Number of Species Observed
Trees	41
Bromeliads	7
Aroids	3
Orchids	4
Ferns	11
Herbs	23
Vines	21
Shrubs	22
Grasses	5

Note: One (1) species of plant (Schefflera troyana) was categorized as vulnerable based on the International Union for Conservation of Nature (IUCN) list





Biological Environment - Flora (Plants)



Typical Vegetation on Hillocks









Philodendron lacerum (Aroid)

Disturbed Hillock

**Agricultural Practices** 











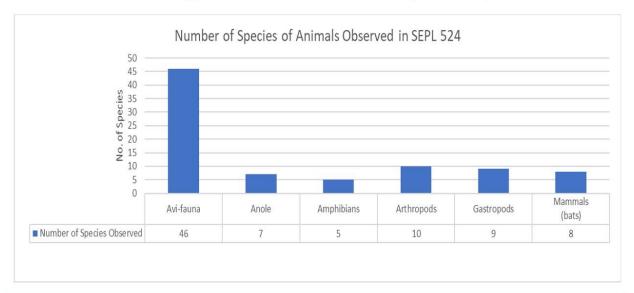
Bromeliad

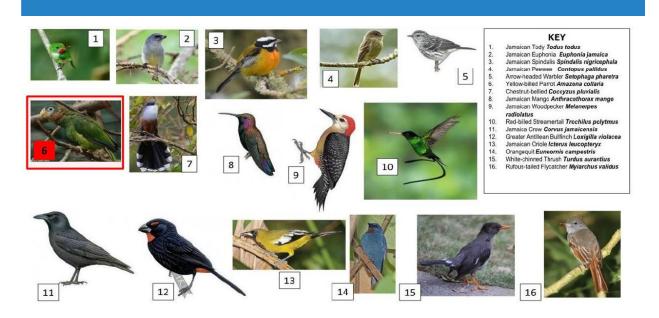
Palm

Cassia occidentalis Ambrosia peruviana Bambosa Vulgaris (Bamboo)



## Biological Environment - Fauna (Animals)



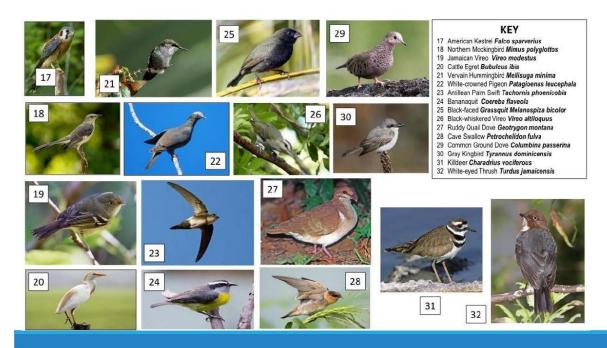


International Union for Conservation of Nature (<u>IUCN</u>) ranked the endemic <u>Yellow-billed Parrot</u> as <u>Vulnerable</u>





### Mandatory Public Meeting Report







### **Mandatory Public Meeting Report**







Anolis lineatopus (Jamaican gray anole)



Anolis opalinus



Rhinella marina (Cane Toad)



Eleutherodactylus luteolus

Note:

International Union for Conservation of Nature (IUCN) ranked the:

- Osteopilus crucialis (Jamaica Snoring Frog) as endangered, and
- Trachemys terrapen (Jamaican Slider) as vulnerable



Giant African Snail Achatina fulica



Pleurodonte amabilis



Orthalicus undatus



Pleurodonte amabilis



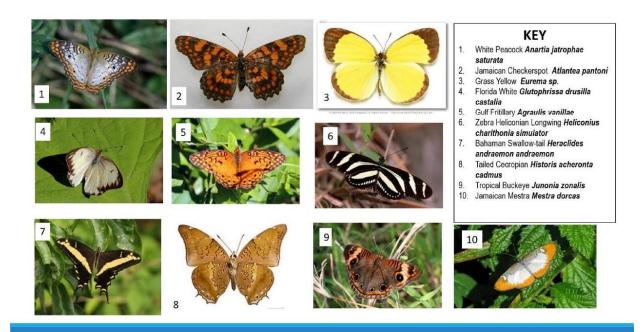
Pleurodonte candescens

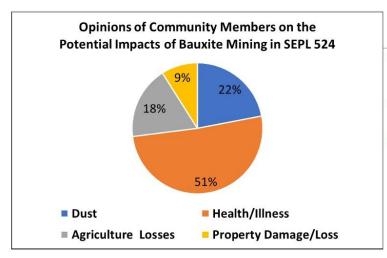


Pleurodonte candescens





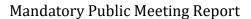




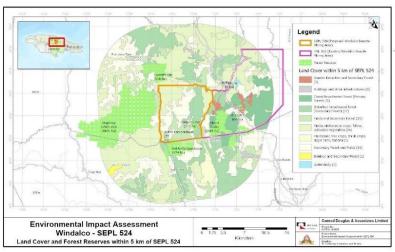
#### Description of the Environment Socio-cultural and Economic Environment

- The survey covered several communities within 5 km of SEPL 524, and a total of one hundred and sixty-seven (167) individuals
- The majority of the respondents were selfemployed.
- Income levels are generally low with more than 50% earning less than JA\$50,000.00 monthly.









# Description of the Environment Land Use

# Current Land Use within 5 km of SEPL 524

- Built-Up/Urban Areas
- Bauxite Mining and rehabilitated areas
- Forests
- Mixed Woodland/Shrubland/ Grassland
- Agricultural





Grierfield Greathouse





**Edinburgh Castle** 

Penny Pen's main property house

# DESCRIPTION OF THE ENVIRONMENT Historical & Archaeological Heritage Resources

- 306 sites of interest were identified by the JNHT in, and in close proximity to the SEPL(See Volume III of EIA Report: AIA)
- Sites vary from High Significance through Medium to Low Significance.





Vernacular house



Cut stone water tank

30





## **Identification of Potential Impacts**

## The project will **not**:

- Involve any mining in the Forest Reserves or the hillocks
- · Impact on caves and sinkholes, which will be protected
- Impact on declared heritage site facilities, which will be protected.
- Impact on water resources
- Result in any widescale resettlement of households. As far as practicable, any household to be affected will be accommodated in the same community or as close as possible to the original community.

## Identification of Potential Impacts Cont'd

Potential Negative Impacts	Proposed Mitigation
Temporary changes in land use	Rehabilitation of mined out lands
Change in the drainage regime  Increase rain run-off rate and erosion	Drainage areas maintained within mining areas and haulage road design
Noise	Routine maintenance and mufflers installed on major machinery and equipment.
Dust	Road wetting
Resettlement	Compensation
Disruption to livelihoods (to some subsistence farmers)	Compensation or relocation



## Identification of Potential Impacts Cont'd

## **Potential Positive or Beneficial Impacts**

**Economic contributions** 

Developments in agriculture

Standard of living

Resettlement and/or compensation

Community benefits from Windalco's social development programmes.

Scholarship Programmes

**Sports Programmes** 

## Potential Impact and Proposed Mitigation

#### Impacts on People

- Haul roads will be properly maintained
- Dust suppression
- Natural drainage will be maintained as far as practicable
- Use of portable chemical toilets
- Use of silencers or mufflers on construction equipment
- Intersections will be actively monitored
- Safety signs will be installed
- Implementation of Windalco's Environmental Health and Safety policies and procedures at all phases of the project
- Windalco will employ its relocation and/or compensation plans and comply with the requirements of the Mining Act

#### Impacts on the Biological Environment

- The footprints of the operations will be strictly maintained to that which is unavoidable (8.2 % of SEPL area)
- Removal and relocation of sensitive species of plants before the commencement of construction of haul roads and mining

#### Impacts on Historical Heritage Resources

Windalco is obliged to act in keeping with the JNHT's Act.





## Analysis of Alternatives

- 1. No Action Alternative (do nothing)
  - The plant will run out of bauxite feedstock and inevitably close its operations
- 2. Proposed Project Activity
  - The application for an environmental permit is for the mining of bauxite in SEPL
     524 and is the <u>preferred alternative</u>
- 3. New Location
  - There is no new location available, at this time, for bauxite
- 4. Technology
  - State-of-the-art technology will be used
  - Technology to extract boehmite from bauxite is capital intensive and will make the operations uncompetitive

30

## **Environmental Management & Monitoring**

Parameters to be monitored during mining operations of SEPL 524:

- Noise
- Air Quality
- Water Quality
- Solid waste (garbage)
- Landscape and Visual
- Soil Conservation
- Control of spills (bauxite, engine and hydraulic oils)
- Traffic and Access
- Environmental Management & Monitoring Responsibilities, and;
- Reporting





## THANK YOU

## Special thank you to:

- 1. The National Environment & Planning Agency (NEPA)
- 2. Water Resources Authority (WRA)
- 3. The Forestry Department
- 4. The Jamaica National Heritage Trust (JNHT)
- 5. The Statistical Institute of Jamaica (STATIN)
- 6. The Institute of Jamaica (IOJ)
- 7. The persons who live in the communities located in or close to SEPL 524





### Appendix XII: Ad Verbatim

## **UC Rusal Alumina Jamaica Limited (Windalco)**

&

#### **Conrad Douglas & Associates Limited**

Mandatory "Mixed-Virtual" Public Meeting for the Environmental Impact Assessment for the Proposed Bauxite Mining Operations by UC Rusal Alumina Jamaica Limited (Windalco) in the Special Exclusive Prospecting Licence 524 area in the parish of St. Ann.

#### **COMMENCED AT 5:45 P.M.**

### Call to Order & Purpose

CHAIRMAN:

Good afternoon Ladies and Gentlemen, welcome to this Mandatory "Mixed-Virtual" Public Meeting Environmental Impact Assessment for the Proposed Bauxite Mining Operations by UC Rusal Alumina Jamaica Limited (WINDALCO), in the Special Exclusive prospective licence 524 area located in the parish of St. Ann.

This meeting is now called to order.

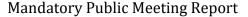
### Prayer - Rev. Stanley Griffin, Jeffreyville Methodist Church

Prayer will now be given by the Reverend Stanley Griffin of the Jeffrevville Methodist Church from the Gibraltar Community of St. Ann.

#### Welcome & Introduction of Panel

Welcome to the public meeting for the proposed bauxite mining operations in the Special Exclusive Prospecting Licence 524 area located in the parish of St. Ann to be undertaken by UC Rusal Alumina Jamaica Limited.

Now this "mixed-virtual" public meeting is being broadcasted live from the Jamaica News Network, that's (JNN) Studios and represents the Mandatory Stakeholders Consultation on the Environmental Impact Assessment for the Proposed Bauxite Mining Operations by UC Rusal Alumina Jamaica Limited, in the Special Exclusive Prospecting Licence 524 area located in the parish of St. Ann. The meeting is also being streamed live via:





INN's YouTube Page

Television Jamaica's YouTube Page

Live on Power 106 FM and

Zoom

The presentation is also being streamed live to three (3) locations in St. Ann within the Special Exclusive Prospecting Licence 524 Area:

Harmony Vale Baptist Church

Jeffreyville Methodist Church and

Grierfield Church

All these locations, strict Covid-19 protocols are being enforced.

The public will be able to participate live via these locations as well as via:

Zoom

YouTube Chat

WhatsApp Line - 876-878-1356

Telephone - 876-733-2461-6.

This process is being undertaken in accordance with the PUBLIC CONSULTATIONS GUIDELINES FOR ENVIRONMENTAL IMPACT ASSESSMENTS as well as an addendum document that has been developed (by NEPA) in response to the Covid-19 pandemic.

#### Why not the typical face-to-face meeting

Due to the Covid-19 pandemic and the continued spread of the virus, there are gathering limits as stipulated by the Disaster Risk Management Orders, 2020. To ensure that the reach of this meeting is not limited, this multimedia approach.

This reach, as customary, includes the several Ministries. Agencies and Departments of Government that have been





### Mandatory Public Meeting Report

specially invited to this mixed virtual meeting. These include representatives from the following Ministries:

**Transport and Mining** 

Science, Energy and Technology

**Economic Growth and Job Creation** 

Labour and Social Security

Health & Wellness

Also, the following agencies:

National Environment & Planning Agency

Office of Disaster Preparedness & Emergency Management

Jamaica Constabulary Force

Jamaica Fire Brigade

Jamaica Bauxite Institute

Mines & Geology Division

Water Resources Authority

Jamaica National Heritage Trust

**National Works Agency** 

Forestry Department

**Social Development Commission** 

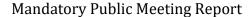
Rural Agricultural Development Authority

St. Ann Municipal Corporation

As well as,

The Custos of St. Ann







St. Ann Chamber of Commerce

Members of Parliament & Councillors

And importantly:

Jamaica Environment Trust

The University of the West Indies

Additionally, our Steno Writer is;

Mrs. Winnifred Vidal-Manahan

#### INTRODUCTION OF PANEL

On the panel this afternoon, are:

Dr. Conrad Douglas, Executive Chairman & Principal Consultant, Conrad Douglas & Associates Limited,

Dr. Mark Richards, Technical Director, Conrad Douglas & Associates Limited

Mr. Glendon Johnson, Human Resources Director, UC Rusal Alumina Jamaica Limited

Mr. Kurt Johnson, Mining Manager, UC Rusal Alumina Jamaica Limited.

#### INTRODUCTION OF NEPA REPRESENTATIVE

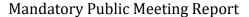
We are also joined in studio by the representative from the regulator – National Environment and Planning Agency, Mr. Miguel Nelson, Manager, Applications Secretariat Branch who will now read the official statement of NEPA. Mr. Nelson?

### Statement by the National Environment & Planning Agency (NEPA)

MR. NELSON: Thank you, good afternoon all.

On the 24<sup>th</sup> of September, 2019, the National Environmental Planning Agency received an Environmental Permit application







from UC Rusal Jamaica Limited (Application No.2019-06017-*EP00243*) for *mining and quarrying* in the parish of St Ann.

The information submitted in support of the application was reviewed and after screening it was decided that an Environmental Impact Assessment would be required for the proposed project.

Integral to the EIA process is the requirement for a mandatory public meeting/consultation to provide interested individuals, groups and/or stakeholders an opportunity to have a say in the decision-making process. Consequent to Covid-19 and the Disaster Risk Management Act (Enforcement Measures) Orders on public gathering, the NEPA/Natural Resources Conservation Authority accepted that it would not be prudent to have physical meetings at this time. The alternative of a virtual meeting captures all the major tenets and principles of a physical meeting. This virtual public meeting therefore is intended to broaden the inclusion process and garner the views of all.

The audience should be advised that **NO FINAL DECISION** has yet been made on the application submitted. Participants should note that this public meeting is deemed important and the outcome from the meeting will be submitted to the Natural Resources Conservation Authority to guide the decision-making process.

The Agency is present to support the process to ensure that the public meeting, though virtual, is undertaken in accordance with the terms outlined in the document titled "GENERAL GUIDELINES FOR PUBLIC CONSULTATION (EIA Applications)". As a regulator, the Agency must remain objective and as such, will not participate in making comments or answering questions in relation to the development.

Of note too is the process with respect to the public presentation and the Agency wishes to highlight the following with respect to this public meeting:

> 1. A copy of the Verbatim Minutes of the Public Meeting is to be submitted to the Agency by the applicant within seven (7) days of the date of the Public Presentation.







- 2. The public is allowed up to twenty-one (21) days after the Public Presentation to provide written comments to the Agency. These comments may be submitted to the Applications Secretariat Branch of the Agency at 10 Caledonia Avenue, Kingston 5 or via electronic mail to applications @nepa.gov.jm
- 3. All comments received by the Agency will be collated and sent to the applicant for responses to be provided.
- 4. The issues raised along with the responses provided by the applicant are incorporated in the respective submissions to the various Committees and the Authority and will facilitate deliberations on the technical merits of the project.
- 5. A recommendation will be made to the Natural Resources Conservation Authority (NRCA) which is the body responsible for making the final decision. Please note carefully that the final decision on the application is the sole responsibility of the NRCA.

The Agency views the public presentation and public consultation process as extremely important in the application review and decision making process. Public presentations provide an additional opportunity for stakeholders to air concerns, make comments, share opinions and views on development projects and afford the applicant the opportunity to address these concerns/comments/opinions/views.

Please be reminded that the Environmental Impact Assessment Report for the proposed project is available for access by the public at the following locations:

Harmony Vale Basic School, St. Ann

Bensonton Postal Agency, St. Ann

Emanuel Wisdom Centre, St. Ann

Praise Center Church, St. Ann





#### Mandatory Public Meeting Report

Mount Waddy, Primary School, St. Ann

Jeffrey Ville Basic School, St. Ann

St. Ann Parish Council, St. Ann's Bay, St. Ann

National Environment and Planning Agency Documentation Centre, 11 Caledonia Avenue, Kingston 5

National Environment and Planning Agency Website (www.nepa.gov.jm)

Conrad Douglas & Associates Limited Website (www.cdaestech.com)

Finally, be reminded that comments can be sent to the Applications Secretariat Branch of the Agency at 10 Caledonia Avenue, Kingston 5 or via electronic mail to application @ nepa.gov.jm

Thank you.

CHAIRMAN:

Thank you very much, Mr. Miguel Nelson of NEPA.

(At this time, Mr. Miguel Nelson exited meeting)

Ladies and gentlemen, if you are just joining us, this is the "Mixed-Virtual" Public Meeting for the Environmental Impact Assessment for the Proposed Bauxite Mining Operations by UC Rusal Alumina Jamaica Limited (Windalco), in the Special Exclusive Prospecting Licence 524 area in the parish of St. Ann.

The findings of the Environmental Impact Assessment will now be presented by Dr. Mark Richards, Technical Director, Conrad Douglas & Associates Limited, the pioneering multi-disciplinary environmental management consultancy firm in Jamaica and the English-speaking Caribbean, which has over 35 years of experience in environmental impact assessment, project planning, sustainable development, project management, engineering and environmental management.

Now I would like to hand things over to Dr. Mark Richards.

#### PRESENTATION





# Report on EIA for proposed Bauxite Mining in the Special Exclusive Prospecting Licence 524 located in the parish of St. Ann

### Dr. Mark Richards, Technical Director, Conrad Douglas & Associates Limited

DR. RICHARDS:

Thank you, Madam Chairperson, Ladies and Gentlemen, good afternoon.

On behalf of Windalco and Conrad Douglas & Associates Limited, I welcome you to this Mandatory Public Meeting on the proposed Mining for Bauxite in the Special Exclusive Prospecting License Area 524 in St. Ann.

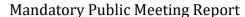
In keeping with international best practices in carrying out the Environmental Impact Assessment and Permitting Processes, this activity is highly recommended and is clearly stated in Agenda 21 of the United Nations. Essentially, it states that the persons to be affected by all development projects should be consulted. The reason for this is to obtain their views and inputs first-hand into the process so that they may be integrated into Environmental Impact Assessment Report and appropriate actions taken to enhance those things, which maybe positive and mitigate or avoid those things that may be negative. It is also being done in accordance with the requirements of several international and national policies, laws, regulations and standards to which Jamaica is a signatory or which forms a part of Jamaica's laws.

Voluntary consultation meetings were conducted during the EIA preparation phase. However, this meeting is the Mandatory Public Meeting and is required by law. Ladies and Gentlemen, this therefore makes this Mandatory Public Meeting your meeting, in which you are expected to voice your concerns and make recommendations.

Whatever you say therefore, is faithfully and diligently recorded by a Court Stenotypist for the records and for the analysis and future actions. The report from this meeting will be submitted to the National Environmental Planning Agency (NEPA) within seven (7) days.

It is important to note that the entire EIA was done to comply with a set of Terms of Reference (ToR) approved by NEPA and several other Government agencies.







I will now do a presentation, which is a brief some of the findings of the EIA, bearing in mind that the EIA has been placed in a number of public places for a period of at least 21 days to provide you with the opportunity to review and familiarize yourself with details of its contents. Those documents will remain in place after this meeting.

At the end of my presentation, we will invite questions through the Chairperson. Participants should state your names and your communities/stakeholder affiliations when asking questions. We on the panel will attempt to answer these, as far as possible but may not be able to answer all of them in this meeting. However, most importantly, your questions and concerns will be recorded for future actions. Please note that any recommendations and suggestions that you may have will also be treated in like manner.

For persons at the satellite sites, we are asking you to fill out the information in the Attendance Register as we will be contacting you, as necessary.

Ladies and gentlemen, this is the general layout of how I will be presenting.

I will have an introduction to the area of the project

I will give a general description of the proposed project and;

Overview of the legislative framework will also be presented.

### Most importantly;

I will provide some of the results of our research into the environmental baseline and setting for the proposed project.

A summary of the results of our analysis of potential impacts will be presented.

I will describe the proposed measures for impact mitigation.







The alternatives for the project that were investigated will be expounded on and, a discussion regarding the environmental management of the proposed programme will be done.

Ladies and Gentlemen, the SEPL is located in Southern St. Ann along the border with St. Catherine and Clarendon.

(Temporary challenge with power-point presentation)

#### PAUSE IN PRESENTATION

#### **RECONVENED**

...and as can be seen in the map that is being shown in the presentation on screen. Some of the townships and the villages in the area are: Harmony Vale, Drumily and York Castle to the North West, Concord and Pedro River to the South West. Christopher, Bensonton in the central area, New Hall, Tydixon to the south east and Grierfield, Friendship to the North and North east Gibraltar, Clover Hill and Camperdown in the Central eastern area. The bauxite deposits are shown in orange on the map and are dispersed in pockets over the area, and you can see those orange spots are dispersed all over.

For a more obvious reference regarding its location, we can see the Edward Seaga Highway running just east of the boundary of the SEPL.

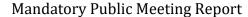
The proposed project will involve mining of bauxite in 5-year cycles over a period of 25 years. A Mining Plan must be prepared and presented to the regulators for their approval, every five (5) years.

The orebodies and haul roads will comprise about 8.2% of the entire SEPL. The entire SEPL is 6,839.9 hectares meaning that the orebodies and haul roads in total is about 496.7 hectares, which is a relatively small amount of the area on the SEPL.

Some important features of the project are:

1. The bauxite from these orebodies will sustain Windalco's current operations for the production of alumina at its Ewarton Plant.







- 2. The maximum production capacity of the facility is 2.1 million tonnes of bauxite per year.
- 3. There will be employment opportunities for residence in the surrounding communities of the mining areas over the lifetime of the project.
- 4. The project will positively impact the Jamaican economy during its implementation, as we know that the bauxite alumina sector has become the number one foreign exchange earning sector in the Jamaican economy during the current Covid-19 pandemic which is ongoing.

There are a number of activities involved in the project operations and the five main steps are:

Firstly, the settling of issues regarding mining rights. Windalco is land owner for a small portion of the SEPL presently, and approximately about 2% is owned by them. Details of landownership and mining rights are presented on the next slide.

This mining rights step is followed by the construction of haul roads to gain access to and to transport the mined bauxite.

After haul road construction, the stripping of the 24 inches of topsoil occurs. This topsoil is placed in storage for reuse in reclamation after mining has been completed.

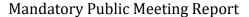
The next step involves mining of bauxite in which heavy equipment, mainly excavators, remove bauxite from the mine pits to trucks which transport the mined ore along haul roads (some new and some existing) to the existing Ewarton plant for processing.

Once mining of an orebody is completed, and this usually occurs over a period of 3-9 months per pit, the rehabilitation of the mined out bauxite pit will be executed.

SEPL 524 has both private and government owned lands. The map in the slide shows the distribution.

Windalco, as I said, owns 2% and it's that little blue area of the SEPL marked 'ALCAN" while the areas in purple are held by the







Commissioner of Lands and those in yellow are privately held. The majority of the land in the SEPL is privately held.

The purple lands, those owned by the Commissioner of Lands, can be accessed by Windalco once the appropriate approvals are obtained from the requisite regulators including the Mines and Geology Division and NEPA.

If mining rights is required for any privately owned land, Windalco is obliged to pay fair and reasonable compensation to the land owners.

All lands will be rehabilitated and returned to the original occupants or land owners upon completion of mining.

In conducting the EIA a critical review of the legislative framework within which the proposed project will be managed was done. This included review of the relevant policies, legislation, regulations and standards.

The Mining Act provides an explanation of what the Special Exclusive Prospecting License is and it is essentially permission granted by the Minister of Mining for the holder of such a license (in this case Windalco) to go into an area and search for Bauxite. Windalco is therefore the only company with this right in this area of Jamaica, since the Act gives the holder of the license exclusive rights for this project.

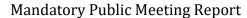
The legislative framework presented in the EIA included review of seven relevant international treaties of which Agenda 21 was one.

Five national policies, for example, Vision 2030 and the National Systems of Protected Area.

Twenty-five (25) pieces of national legislation, including the NRCA Act, WRA Act and Forestry Act.

And it is important to note that bauxite mining will only commence in this SEPL area upon issuance of regulatory approvals and permits. Before the startup of any mining in the communities, the stakeholders will have to be properly notified by Windalco.







Ladies and Gentlemen, we are at the meat of the matter. The EIA process involves a detailed study of the specific environment in which the proposed activities will take place, and as required by the ToR, the region in which it will take place. In this case the specific geophysical area is defined by the boundaries of SEPL and the setting takes into account any important nearby features.

Within the boundary of the SEPL, several important resources had to be investigated in detail. These included:-

- 1. The biological
- 2. The physical
- 3. The social
- 4. The economic
- 5. The historical and cultural heritage

These were studied in detail based on the requirements of the Terms of Reference.

It is important to note that:

- 1. The area is sparsely populated. Meaning, there are many small villages dispersed over a large area. And these villages have low populations.
- 2. The SEPL area is not pristine or untouched as it has been subjected to various human activities over the years:

These activities include the establishment of plantations in 1700s, hunting, human settlements agricultural practices and land clearance is very prevalent in the SEPL.

The rocks, soil and shape or formation of the area of SEPL consist mainly of members of the white limestone group. It shows karstic features in some areas which are typical of those areas with high purity white limestone formations.

The main groups are shown on the map to the top left of the slide and the main formations are:







Troy-Claremont Limestone Formation in blue

Somerset Limestone Formation in pink which is dispersed in the SEPL.

Walderston-Browns Town Limestone Formation in green

The SEPL is characterized by rolling hills, knolls and valleys, and this is depicted in the image at the bottom left corner of the slide.

There are intersecting fault lines in the SEPL area as is common in most of Jamaica's landscape.

Madam Chairman, Ladies and gentlemen, we consider it important that you have an appreciation for what is bauxite. Bauxite is a finite non-renewable resource which is classified as being among the clay minerals. In most cases it is red and called *terra rosa* but it is important to note that not all red soil is bauxite.

Bauxite is the commercially viable ore for aluminum production.

The moisture content of naturally occurring bauxite ranges from about 20% to 25%, which is considered relatively high for soils.

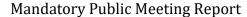
Bauxite, when wet, is highly cohesive, difficult to handle and does not flow easily.

Bauxite has a very interesting history in Jamaica since it was discovered accidentally by Sir Alfred DaCosta who had planted bananas and was not getting the production he wanted. That piqued his curiosity and tests were done on the soil on his farm. It was concluded that the infertility was due to the high bauxite content.

The first shipment of bauxite from Jamaica soon followed and was by Reynolds from Ocho Rios pier in May 1952 and the Gleaner Article from that day is shown on the slide.

Our economy grew tremendously as a result of the development of the bauxite alumina industry and was at one time it was the world's leading supplier of bauxite and alumina.







Bauxite occurs as deposits located in the depression between the hillocks and low-lying valleys in the SEPL area. The lowlying deposits of bauxite supports mainly grassland/shrub vegetation and agricultural activities. It does not generally support the growth of large trees or dense forest cover.

Ladies and Gentlemen, the photographs on the slide show the mode of occurrence of bauxite within the SEPL. CD&A took drone images all over the SEPL and has compiled this collage.

The wide open valleys between mountain ranges occur in the northern and central sections of the SEPL, and these are found at the top of the slide being shown.

While, the southern deposits occur in smaller pockets between elevated hillocks, and these are shown at the bottom of the slide.

The sparse occurrence of large trees on the deposits is very obvious from the photographs taken at locations distributed over the SEPL. In many cases trees have been planted in the area to provide fencing to separate farms within the SEPL.

Note that trees/forests are located on hillocks in all images and not on the low-lying bauxite bearing areas.

You would have seen some images on the slide showing the occurrence of bauxite in the wide open valleys in the northern sections of the SEPL and you can see the orebodies are in depressions and there are vegetated elevated hills surrounded the deposits.

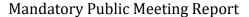
They also would have shown images of bauxite occurrence in the small areas, between the hillocks in the southern regions of the SEPL.

During our investigation we found that there were fourteen (14) documented caves and sinkholes in the SEPL area. The caves observed during our site visits were elevated on the hillocks.

Eleven (11) documented caves are within 5km of the boundaries of SEPL 524.

The images numbered 1 show the location of the Grierfield Cave in the hills around Grierfield and 2 shows Clover Hill Cave. And







the map that was on the slide shows the location of these caves within the SEPL and its surrounding areas.

The hydrological and hydro-geological studies showed that:-

- 1. There are no significant rivers or streams within the study area. However;
- 2. The SEPL sits atop a limestone aguifer and this would have been indicated in our map.
- 3. The groundwater flows towards the north and passes subsurface (beneath) the SEPL.
- 4. It is highly unlikely that the water resources beneath SEPL will be impacted if the orebodies within the SEPL are mined.

It is important to note also that monitoring of water levels within wells in the areas east of the SEPL that was done by WRA and others have indicated:-

- 1. A ground water divide in the groundwater resources below the Moneague area, and this would have been shown in the slide.
- 2. Groundwater flows is generally northwards as indicated by some arrows on the slides.
- 3. The depth to ground water in these areas as determined from these monitoring wells and these active wells, is close to 100m which equates to about 300ft.

And we would anticipate that this would be the depth to groundwater in the areas of the SEPL which is just west of the Moneague area.

Bauxite is not found at groundwater depth in the SEPL. The maximum depth to which bauxite has been found is 30m with an average depth of approximately 10-20m. And you can see from this that the groundwater depths, which are those shown in handwritten notes, vary from 275 to 300m. However, this is east of the SEPL. So, it is anticipated that the western section would also have these depths to groundwater.







Air quality measurements within the SEPL revealed that at present the concentration of dust in the air within the communities and some remote areas of the SEPL are within the Jamaican standards set for the protection of health.

An air dispersion model was done for the proposed project and this model would predict the movement of dust and other emissions from the processes involved in the mining within the air in the SEPL. The model indicates that no significant impacts are expected in areas where people live. The prediction is for increased concentrations in the mining pits but the concentrations are predicted to decrease as one moves away from the mining areas.

Noise levels within the SEPL are presently within the standards set by NEPA of 75 decibels.

No vibrations were detected during our study.

In essence the baseline is that, this is a quiet area and of relatively good air quality.

The study of the biology and ecology of the area shows that the area consists of disturbed forest with three habitat types:

- 1. The elevated forested areas
- 2. The open bauxite bearing grassland depressions
- 3. Open bauxite bearing valleys

The study shows that elevated limestone hillocks have a high bio-diversity. And;

In conducting our studies we found that in SEPL 524 there were:

- 1. Forty-one (41) species of trees.
- 2. Seven (7) species of Bromeliads were observed.
- 3. Three (3) species of aroids and 4 species of orchids were found.
- 4. Eleven (11) species of ferns as well as 23 species of herbs and 21 species of vines.







- 5. Twenty-two (22) species of shrubs were observed during our study. And;
- Five (5) species of grasses were seen. 6.

It is important to note that one (1) species of plant was categorized as vulnerable based on the International Union for Conservation of Nature listing.

Our search for the members of Hernandiaceae family yielded no results.

This slide presents the variety of flora/plant within the SEPL.

It shows the vegetation on the hillocks in the top left hand corner - elevated forested areas.

It shows the vegetation in the open valleys which is the right top corner.

It shows areas of disturbance by man made activities in which the lands are cleared for farming, and then there is a disturbed area which it could be man made or it could be natural in terms of maybe a fire which occurred naturally.

We found one aroid which is shown to the right.

The Bromeliads, a palm, the cassia plant, a shrub, and we are also showing a bamboo which is one of the grasses which was observed. So, these are just samples of what we saw during our study.

We have observed forty-six (46) species of birds during our study.

Seven (7) species of anole and five (5) species of amphibians during the study.

As well as ten (10) species of arthropods and

Nine (9) species of gastropods.

Our analysis of bat calls indicated the potential presence of eight (8) species of bats in six (6) caves studied within the SEPL.







There were no sightings of the endangered and protected Giant Swallowtail Butterfly nor the plants which are crucial for supporting its existence.

This slide shows some of the bird species observed in the SEPL during our studies.

Please note that the yellow billed parrot was observed within the SEPL. This is an endangered and threatened species. This ranking is verified on the IUCN list. However, its habitat is high in the hillocks removed from mining activities in the depressions.

There is also the red-billed streamertail, the Jamaican woodpecker and the Jamaican crow to name a few.

More birds observed in the SEPL as we conducted our study. We see on this list:

The American kestrel

White crown pigeon

Common ground dove

Grassquit

Cattle egret

To name a few on the slide.

Here we have the:-

The popular white wing dove

The olive-throated parakeet

Turkey vulture

Northern Potoo

These are some of the frogs and lizards observed in the SEPL during our study.

Our popular green lizards – anolis garmani.







The Jamaican gray anole is shown.

The Cane toad is also shown.

Important to note that the Jamaican Snoring Frog was observed and this is an endangered species as indicated by the IUCN.

Also, the Jamaican Slider, a turtle, was observed in the SEPL and it is classified as Vulnerable by the IUCN.

These are a few of the Gastropods/Mollusks observed in the SEPL, which are presented in the slide.

We present here the butterflies observed in our study. Our sample of butterflies observed in our study. Butterflies fall in the Arthropods (insecta) grouping, which also comprised beetles, flies, millipedes, et cetera, some of which were also observed and those are included in the ten (10) species we have indicated. The butterflies are presented based on the prominence these species hold in the ecological resources. Again, there is no evidence to support the presence of the Giant Swallowtail within the SEPL.

The socio-economic and socio-cultural studies for the SEPL were carried out by administering a pre-coded pretested survey instrument among 167 persons within the SEPL, and the areas within 5 km of the SEPL boundary. This survey instrument was also approved by the regulators.

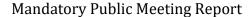
It was found that the income levels were generally low within the SEPL and its environs. The employment status was majority self-employed.

The majority of the respondents earned below \$50,000 per month.

The perceived potential impacts of main concern by the residents of the study area are presented in the image on the left of the slide, and the majority of the respondents are concerned about health and illness and the potential for dust pollution.

The area can be described as having mixed land use. The major land use in the area are:







- Built-up/Urban Areas which would include the 1. small towns and villages that are not in the SEPL.
- 2. There is bauxite Mining and rehabilitated areas
- 3. **Forests**
- Mixed Woodland/Shrubland/Grassland. And; 4.
- 5. A large number of agricultural activities.

The image to the left of the slide shows the general land use distribution in the SEPL and its environs.

And we can see prominently in lime green and those represent forest reserves throughout the area.

Agriculture activity is represented in light colours and they move from light colours to light green and those are also prominent within the area.

The JNHT was commissioned to conduct an independent Historical and Archaeological Impact Assessment. The results and the details are presented as Volume III of the EIA.

The INHT observed 306 sites of interest in and in close proximity to SEPL 524.

These sites vary in significance from high through medium to low significance.

Some of the sites of interest documented by the INHT are:-

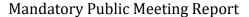
The York Castle Ruins which is shown in the top left hand corner

The Grierfield Great House also in top left.

The Ruins of the Edinburgh Castle, the bottom left.

The Penny Pens main house which still exists and is functional; it's still a part of the SEPL.







There are a number of Vernacular House examples and one is presented on the side of the slide. And;

The foundations of old homes and buildings are examples and these are shown in the lower right hand corner.

All of these add to the heritage resources within the area.

In discussing the potential impacts of the proposed project we need to highlight first a few of the DONTs for the project. The project will not:

- 1. Mine in the forest reserves
- 2. Impact caves and sinkholes
- 3. Impact declared heritage site
- 4. Impact water resources
- 5. Result in widescale resettlement.

The major potential impacts may result from a temporary change in land use. And this will be mitigated by the rehabilitation of mined lands and the returning those lands to the owners for appropriate use.

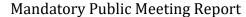
There is the potential for changes in drainage regime in the mined areas and along the haul roads which could increase runoff rates and erosion. This can be mitigated by containing runoffs to the mined pits from both the haul roads and the pits being mined.

There is the potential for noise pollution once operations have started. Windalco will mitigate this by implementing their routine maintenance programme and having silencers and mufflers on heavy equipment.

Pollution of the area. This will be mitigated by road wetting and wetting of exposed surface especially during dry seasons.

If resettlement is unavoidable then Windalco will compensate as required.







If there are disruptions of livelihoods especially for some farmers Windalco will compensate or implement a relocation exercise.

Some of the beneficial impacts of the project are as follows:-

- 1. Economic contributions to the local community and the national economy.
- 2. Developments in agriculture can be entertained Improved technologies such as greenhouse and water management assistance.
- 3. Standard of living could be improved in the communities impacted
- 4. Resettlement and/or compensation for some people who maybe living in conditions that are not of a high standard.
- 5. Community benefits from Windalco's social development programme and these include Scholarship Programme, Sports Programmes and just general community development initiatives.

The general Mitigation measures proposed for the project are as follows:-

Haul roads will be properly maintained.

Dust suppression by wetting which will increase as the climatic conditions dictate.

Natural drainage of the areas being impacted will be maintained.

Portable toilets will be used in the mining areas.

Silencers and mufflers will be employed on heavy equipment.

Crossings that are used by the public and Windalco will be manned and monitored.

Signs will be erected where necessary for public safety and public notifications.





Windalco will implement its health and safety plans.

Windalco will employ its relocation and/or compensation plans and comply with requirements of the mining act and its regulations.

For the protection of the biological environment the main mitigation(s) are:-

- 1. Maintain the proposed footprint of 8.2% of the overall SEPL impacted
- 2. Rehabilitate all mined areas and haul roads where needed
- 3. Remove and relocate all species of concern in areas before mining and haul road construction begins. And;

For the protection of historical and heritage resources Windalco will maintain a small footprint as possible, and is obliged to act in keeping with the JNHT Act.

The ToRs of the EIA requires that the alternatives to the proposed option be analyzed in detail and presented. The alternatives to the proposed project that were analyzed are:

**No Action Alternative** This is the one in which nothing is done and which means that the proposed project would not be implemented.

The current activities of the SEPL would continue to be implemented.

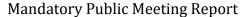
This would result in Windalco not being able to access bauxite to feed the alumina production process and the company ceases operation.

This is not a viable option.

#### **Proposed Project Activity**

The project will be implemented within the proposed boundary of SEPL 524 in accordance with Environmental Permit approved.







The above benefits and other advantages discussed realized. And this is the preferable option.

#### **New Location**

This proposal would, essentially, be a search for areas to mine in proximity to the plant.

This is not an economically and environmentally viable alternative since no other deposits exist in close proximity to the plant.

#### **Technology**

State-of-the-art technology is being used presently. The technology to extract boehmite from bauxite is capital intensive. This is not an economically viable alternative.

State-of-the-art environmental monitoring, evaluation and management methods will be used by Windalco prior to and during the entire mining operations to fully satisfy compliance with the regulatory framework and its own internal policies and standards. The internal environmental management resources of Windalco will be augmented as required and they will involve experts in the field and the communities will be involved during the operation.

The following will be monitored and effectively managed using internationally best practices and in accordance with the applicable regulatory framework.

Noise - Will be monitored

Air Quality

Water Quality

Waste

Landscape and Visual

Impacts and Visual impacts

Soil Conservation - To ensure that the soils that are stored for reclamation are maintained in a





manner that they are still useful after years of storage.

Chemical Waste & Control of Spills

Traffic and Access Management will be monitored and these will be compiled in reports to the regulators on the basis that has been agreed.

So far we have gone through and summarized findings of the EIA and we hope it was clear and all who are watching and listening got an appreciation of the amount and level of work that we have completed.

We are grateful for the valuable input from all who have provided their opinions, recommendations and lent their voices to this process. These include but are not limited to the following institutions and stakeholders:-

The National Environment and Planning Agency

The Forestry Department

The Institute of Jamaica for providing us with a lot of the information that assisted in preparing the EIA.

The Statistical Institute of Jamaica, again provided us with some information

The Water Resources Authority, for meetings we had and information they provided

The Jamaica National Heritage Trust for preparing the historical and heritage studies. And last but not least;

For all the persons in the communities located in the SEPL that you know, welcomed us and provided us with the assistance we thank you all.

I now hand over the proceedings to the Chairperson.

Thank you so much, Dr. Mark Richards for your presentation on the findings of the Environmental Impact Assessment. Ladies

CHAIRMAN:





and Gentlemen we are going to take a short break at this time and when we return we will be coming to you for your participation in this virtual meeting by way of your questions and comments. We will be right back.

#### **OUICK BREAK - 6:13 P.M.**

#### **RECONVENED AT 6:18 P.M.**

All right, we are back with our very important public meeting as we look at the special exclusive prospecting license 524 area and now anticipate your questions and comments.

## **QUESTIONS & ANSWERS**

Thank you again for your patience during the challenging moment but we sort those out eventually. All right we go over to the Harmony Vale Baptist Church, they are not quite ready.

We do have three (3) locations:-

The Harmony Vale Baptist Church

The Jeffreyville Methodist Church and;

The Grierfield Church of God.

The citizens have gathered at those three locations to allow themselves to – Ooh, I think you are sending me something on WhatsApp but — How will the compensation package be structured? I think what they are asking, will a valuation be done before you get to that point. Dr. Conrad Douglas, you want to take that?

DR. DOUGLAS:

The Company how it operates, it has a policy and clearly what it does is to determine the land ownership or land tenure, and I think that's what the person is referring to, the participant when they spoke about compensation. There are also other types of policies that might require some amount of compensation as well, separate and apart from land. For example, in the case where you say the potential for dust pollution in which peoples properly could be impacted if the conditions are very harsh in terms of weather conditions and if the wetting or irrigation regime on the roadways are not strictly maintained. In respect of the land issue I am going to ask Mr. Johnson.







CHAIRMAN: That's Mr. Kurt Johnson?

DR. DOUGLAS: Yes.

CHAIRMAN: Would you like to take it..?

DR. DOUGLAS: ...to speak to that one. But in respect of the dust, this is normal,

and the company normally has compensation packages.

CHAIRMAN: All right. Mr. Kurt Johnson? Which of the Johnsons will take this

one?

MR. K. JOHNSON: Well, all right. Good afternoon, Jamaica. With respect to

compensation on land if I understand the question correctly, the viewer or listener wants to find out how do we approach land issues. Generally, as Dr. Conrad Douglas says, we have a policy which strictly abides by the laws of the country and normally what we do is, we value the land, and use market prices to drive that discussion. Of course, it's a case-by-case basis and at the end of that process persons whose lands are going to be affected in that way would then derive from compensation if it is that we

are going that route.

CHAIRMAN: So, there is a negotiation process...

MR. K. JOHNSON: Absolutely.

CHAIRMAN: ...based on individuals and what their circumstances are?

MR. K. JOHNSON: Absolutely.

CHAIRMAN: All right, do we have a question coming from any of the other

locations or do we have – All right. Let me just remind you know, we are doing what – Yes, go ahead. Harmony Vale Baptist Church now? So, we are going over to Harmony Vale and

anticipating what they will have to ask.

MS. JACKSON: Good evening everyone, my name is Nikeisha Jackson, my main

concern about everything that is happening with this project is environment and our health. That's my main two concerns the environment and our health. That's my two (2) concerns :The environment and health of the people in the communities.

CHAIRMAN: All right, I am going to Mr. human resources.





DR. DOUGLAS: I will take it.

CHAIRMAN: You want to take some of that, Dr. Douglas?

DR. DOUGLAS: Yes.

CHAIRMAN: Environment and health is the person's concern.

DR. DOUGLAS: As Dr. Richards explained in the presentation, Rusal is now

> putting in practice it's full environmental health and safety policies in the process before mining activities are started and during the process of mining. And the objective is to protect the members of the community of any adverse effect. Similarly, you must understand that the they too must protect the workers that they employ. Because they will be right there in the mines as well. So, they take all the necessary steps to ensure that the

actions are taken to protect the health of the worker.

CHAIRMAN: So, that question was very important?

DR. DOUGLAS: It's a very important question.

CHAIRMAN: Protection of the community members but also those persons

who work on the plant.

DR. DOUGLAS: That's correct, everyone in the public sphere, that falls within

spheres of the influence of the mining activities actions are

taken to protect them.

And so, some of the things that we have observed and Dr. Richards mention in the presentation is the entire laws, regulatory framework in which the project was analyzed and health and safety were among those things that were taken into consideration. And one of the things that we had to do in conducting the study was to do what is known as an environmental baseline assessment as well or EBS. And so, we looked at what is the quality of the air, what is suspended in terms of the particles that are there. And we had to -Well, there is another subcontractor who carried out a model, modeling to say, what would happen in the dispersion of this potentially and how does this compare with the standards that exist now to protect people's health. And it shows that the activities will be

compliant with the health standards.

CHAIRMAN: Nikeisha, I hope that answered your question.





DR. DOUGLAS: There is another part with respect to health as well that she

mentioned. Again Dr. Richards made mention of it during the process, it had to do with the noise and vibration. And so, in doing the study we deployed several instruments and this is detailed in the EIA Report throughout the communities and

measure, picked up the present baseline levels.

CHAIRMAN: Okay.

DR. DOUGLAS: And they were very good, very quiet as he mentioned, and one

can expect that with the minor operations it is possible that you could have noise generating which is more than a nuisance sometimes. And so, consequently, the company will have to take the actions to make certain that their equipment are properly serviced, and the proper silencers and mufflers are put in place.

CHAIRMAN: As was stated in the presentation.

DR. DOUGLAS: As was stated in the presentation.

CHAIRMAN: We do have another person from Harmony Vale – Harmony

Vale, very active. Harmony Vale, good evening, what is...

HARMONYVALE: Good evening.

CHAIRMAN: Welcome.

MISS RILEY: Good evening. My name is Michelle Riley. After reading the

Manual I see where they said they would provide topsoil but essential minerals will be removed causing a setback on harvesting and an overall growth of produce which will affect livelihood of the farmers. How do you propose to assist the

farmers in this area?

Second question, does Windalco have any future plans to assist

with the development of the Harmony Vale community?

CHAIRMAN: Thank you so much, Miss Riley. We have two questions: Which

is the removal of topsoil with minerals and then the assistance

and the development of the Harmony Vale community.

DR. DOUGLAS: Thank you, very much Madam Moderator. To answer the first

question Miss Riley first with respect to the removal of minerals, we have to be specific. The mining process entails removing by law the  $1^{st}$  24 inches of topsoil and storing that 24 inches very





carefully so that it is not lost to erosion or anything like that. And then once we are through with mining there is Windalco the proponent, they replace the final cover with that 24 inches.

CHAIRMAN: Let me get this. Where is the soil stored?

DR. DOUGLAS: It is usually stored very close to where the mining is taking

place.

CHAIRMAN: For how long is it kept there?

DR. DOUGLAS: It is not kept there for too long. The rehabilitation process by

law, begin within three (3) years after mining takes place.

MR. K. JOHNSON: Maximum.

DR. DOUGLAS: Maximum, it can take place after; it can takes place before. So,

no particular nutrient mineral or limited is removed from that soil. The entire topsoil 24 inches which contain organic substances, rich in organic substances and some phosphate for example, which are important nutrients, those are removed in full and stored and when the rehabilitation process commences

it is replaced. And so...

CHAIRMAN: So Dr. Douglas, Part 2: Assistance for the community of

Harmony vale.

DR. DOUGLAS: I will ask Mr. Johnson to take this one.

MR. K. JOHNSON: But if I may add to what Dr. Douglas said....

CHAIRMAN: Mr. Kurt Johnson speaking.

MR. K. JOHNSON: Yes, Madam Chair. In Dr. Richards' presentation it was noted,

and should be sent strongly in the minds of persons, that bauxite itself does not support plant growth. So, what we do, the process that we do of stripping the topsoil and essentially storing it, that is the medium in which the farmers grow their crops not in the bauxite itself. And that as Dr. Douglas points out needs carefully store and preserve. So, when we restore it through our technical farming programmes and our internal agricultural exports we ensure that the soils are fully helped to produce at levels prior

to the mining activity to come



CHAIRMAN: All right. The assistance for the communities? That's very

important to know.

DR. DOUGLAS: It's very important to know. It supports grassland cover very

> well – Bauxite. And it supports certain types but what it doesn't support very well are trees, large trees. And in the rehabilitation process the company also adds fertilizer to aid the process.

> So, as was shown in the slides at the very beginning, they grow, that is the farmers, the large crops successfully. In addition to that the grassland supports excellent beef and dairy and this is something that was initiated by their predecessor ALCAN which invested in the pioneering work that was carried out at Bodles Agriculture Station to develop our internationally renowned

cattle.

CHAIRMAN: Dr. T.P. Lecky and his team?

DR. DOUGLAS: That's correct. Thank you so much.

CHAIRMAN: What we are doing, we are staying with one community taking

> a number of questions and the last question will be coming from Harmony Vale at this time when we will go to another community. So, let me go back to Harmony Vale. Thank you Michelle Riley. Thank you for those questions. Who is coming

next?

MR. G. JOHNSON: We have not answered the second part of her question.

VOICE: Good afternoon, my name is Horace Israel...

CHAIRMAN: Hold on a moment, please. You wanted to answer the second

part?

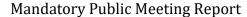
Certainly. MR. G. JOHNSON:

CHAIRMAN: How will the company assist the community?

MR. G. JOHNSON: Sure. Our approach is that, once we are going into a community,

> we have consultations with the different community groups. What can I say right now is that, we have looked at a number of projects that we intend to work on. For example, the Grierfield Basic School. We have the Camperdown Infant and Primary School that needs a playground, we have the Postal Agency, we have a very great concern about the learning loss of schools. And







in that area in particular, there seems to be some amount of challenges in terms of internet connectivity and we are currently exploring, how best we can assist.

But all the communities in those areas will benefit from our scholarship programmes, our agricultural programmes, our sports programmes. And I will tell you that, in terms of the number of playing fields we have built in Jamaica, and schools, basic schools in particular, we have built in Jamaica, I don't think any company can compete with Windalco.

Of course, there are also issues with water, which we are looking at. So, there are a number of projects that we intend to do. However, we do not just impose what we intend to do, we sit, we consult and we work through and determine which projects in which area. But all of these area will be considered. And currently we have advertised the scholarships. And the international scholarships, we sent 25 students to Russia, 23 of 25 have returned. The total cost of that was J\$100 million, and we had to expand it because 2 had to remain in Russia to complete a particular programme. We also have local scholarships, and we have directly targeted that area and we are expanding – anywhere we go.

Additionally, there are employment opportunities because where we go we try as best as possible to invest - education is key.

CHAIRMAN: Education is key and is priority for you?

Education is key for us. MR. G. JOHNSON:

CHAIRMAN: Thank you so much. Mr. Glendon Johnson, Human Resources

Director at UC Rusal Alumina Jamaica Limited.

Sir, at Harmony Vale, you came to the microphone and we had

to put you on hold, it's now your turn.

MR. ISRAEL: Good afternoon, my name is Horace Israel from Harmony Vale. I

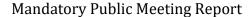
just want to know if the company going to assist us with water.

And the next question is, Balimony is on the list to mine.

CHAIRMAN: Balimony, Mr. Johnson?

MR. K. JOHNSON: Yes. Balimony is a part of the areas that will ultimately be mined.







CHAIRMAN: I have never heard of that community.

MR. K. JOHNSON: Yes, it's in the central-east section of SEPL.

CHAIRMAN: And he did ask about water but the other Mr. Johnson spoke that

yes, they would be looking at a system with the water for the

communities.

MR. K. JOHNSON: Absolutely.

CHAIRMAN: ...as one of their priorities.

All right, where we are going to now, are we going to, which of the two communities. We are going to Jeffreyville at this time, we have a number of people at the Jeffreyville Methodist Church.

PARTICIPANT: Good afternoon, I wanted to know when bauxite cut the road

through the people land if they are going to buy it or whatsoever

they are going do?

CHAIRMAN: All right. So, Mr. Johnson, Kurt.

MR. K. JOHNSON: Yes, hamm...

CHAIRMAN: When oonu cut the road through peoples land what happens.

She wants to know if you are going to buy it?

MR. K. JOHNSON: And that's a very important question Moderator, no Rusal does

not cut through people's land like that. By itself it sounds as if we just go there and cut through their land, it doesn't work like that. As my colleague Mr. Johnson has pointed out, it's a consultative process. First we determine if we have to pass through private land owner properties. If it is that we must pass through the private owner properties, we engage the company's policy which is to value these lands, sit with the land owners, we have a discussion and we try to come to a mutually accepted fair price for the compensation associated with the full parcel or a part of the parcel as is required. But we would never cut

through anyone's land.

CHAIRMAN: All right, so you sit down, meet with them, discuss with them

and compensate at an agreed price for the land?





MR. K. JOHNSON: And the price is not ours, it is normally an independent

valuation that they the vendor would have the ability to check to find to see that we are not trying to play game with the prices.

CHAIRMAN: I don't know if I had reminded you that Mr. Johnson is Mining

Manager, UC Rusal Alumina Jamaica Limited.

I think we have someone from Jeffreyville now?

Yes, I am Audrey Malcolm from the Gibraltar community. What MS. MALCOLM:

> I would like to know is, if a person is going to be located will they be given an opportunity to choose where they want to go?

CHAIRMAN: All, who is going to take that one? Mr. Glendon Johnson.

As we have indicated, any form of for example purchasing, it has MR. G. JOHNSON:

> to be a matter to having that negotiation. If a relocation is required then certainly we will have to sit, discuss and agree. And from my experience, and you might know Happy Content in Faith's Pen, which we did many years ago, we are close to that so you can take a look at it, that scheme that was developed as a relocation project. So, if it is required that we have to relocate you, it will require an amicable agreement, it is not something

that we can force on you. It doesn't work like that.

CHAIRMAN: And the person can't choose where they want to go?

MR. G. JOHNSON: No. We recognize that we are the guests in host communities,

you are hosting us in the community so we have to do so with

respect and we have to do so with honour.

CHAIRMAN: Could you just remind me of the community you spoke of? The

housing scheme that was developed just now near to Faith's Pen

so that people can look at it?

MR. K. JOHNSON: Happy Content.

CHAIRMAN: And that was a scheme that you developed?

MR. K. JOHNSON: Yes.

Conrad Douglas & Associates Limited

MR. G. JOHNSON: No pun intended but probably the people there are very happy.

(Laughter)





MR. K. JOHNSON: The Faith's Pen community, it was originally Faith's Pen, we had

to relocate them to mine the bauxite that were there and they are living in this new scheme and it's called Happy Content.

CHAIRMAN: Thank you so very much. We have another person from

Ieffrevville, ves. Hi. Ma'am?

MISS GREEN: Good evening. My name is Clover Green from Gibraltar. If

> anything and they mine where you live and things like that, what they do like the first time like relocate you and whatever compensate till or whatever. I would like to know it straight out

understand it more clear for. Those are my few words.

MR. K. JOHNSON: All right, if I am - May I take this one?

CHAIRMAN: Mr. Johnson, go right ahead.

MR. K. JOHNSON: If I understand the question Mrs. Green. If bauxite is on your

property. If you are land owner and bauxite is on your property and we deemed that we need to mine this bauxite as we have said before, we would engage in a conversation with you and your family to come up with an agreement that you are satisfied with whether it is we are going to mine a part of your land, all of your land which may involve relocation, and if as Mr. Johnson says, it involve relocation then again, that is something that you, yourself and your loved ones would have to agree with us. We

could not just relocate you.

So yes, we still do that, it's not done as regularly as we want but it's still done but it's always done to the mutual satisfaction of both parties. When we mine we try to return the land as quickly as possible to reduce the location to any, whether farmers or householders as quickly as possible. Because Mr. Johnson said,

we are but yet...

CHAIRMAN: Messrs Johnson?

MESSRS. JOHNSON: I think people like this lady who just spoke, they would like to

adopt - Are you going to go back to community with these

people?

MR. K. JOHNSON: Absolutely.

MR. G. JOHNSON: Sure.



CHAIRMAN: Aah! So, you can sit with them and explain how the process

works.

MR. K. JOHNSON: This process is just a mere application. Mining is not immediate,

it is to come, but there is some time before we get to that stage.

CHAIRMAN: And you give proper notice for people to know where you are

going to meet, when and time?

MR. K. JOHNSON: Absolutely.

CHAIRMAN: Okay.

MR. K. JOHNSON: This process is about satisfying the legal needs and then once

we do that we are then going to engage our community groups.

MR. G. JOHNSON: And the process doesn't stop there because after meet, we need

to mine through the entire time that we will there. We have an active involvement in the community through our Community Relations Department, a well-established department. Somebody who would be on the ground to deal with update, to

deal with development of projects et cetera.

CHAIRMAN: So, for that lady and others who have concern look out, make

sure that they are there to explain the works. I think we have a question on Zoom. Sorry, Mr. Johnson you want to say

something?

MR. K. JOHNSON: Added to what Mr. Johnson said, is that, what a lot of community

residents do not realize is that, we don't mine and operate in absentia, the moment we start to mine in a community there are also government entities that come along with us and create and organize, so immediately there will be council meeting, bauxite council groups and these groups would have a voice. Meeting with the council and its representative regular to discuss projects that they want to see happen, and with the assistance of both those institutions and ourselves we implement on behalf of the residents. So, it's a very dynamic and

participatory process.

CHAIRMAN: So, it seems to me I would like to encourage you when you hear

that these meetings are being held, go along, participate, ask

your questions, make your comments.





From Zoom, let me read this. Do you have any data on the effectiveness of what he is suggesting, mitigating measures in

other bauxite mining communities?

Yes, we do. MR. K. JOHNSON:

CHAIRMAN: Go ahead then Mr – I am going to call you, Mr. Kurt. Because it's

two Johnsons, you have Mr. Glendon and Mr. Kurt.

MR. K. JOHNSON: So, before we start mining in any area as Dr. Douglas has said, a

> baseline, we need to understand the baseline so we establish -Because Miss Green has said and others, they are concerned

about their health.

The study has proven that the area while not virgin and untouched, is very quiet and that the air quality is good. So, what we do, we set up dust monitoring stations at strategic locations within the mining area. What that does, it gives us data, live data before we start operating. When start to operations those stations are not removed we then have dust fallout data that we have. What that does is, by law, there is a law, that says we have a standard that we must maintain, and this is what drives the dust mitigation strategy that we use. So, when we talk about for instance, dovetailing with water supply, that area has no water,

none at all. And so...

CHAIRMAN: No rivers there?

MR. K. JOHNSON: No, as Dr. Richards says, they are all underground, so there is no

water there. So, to manage we must look at how are we going to

get water to keep the dust within the legal level.

CHAIRMAN: Okay.

So, by virtue of that requirement and of course, we are good MR. K. JOHNSON:

> corporate citizens, we are going to set up, install water to suppress dust, and maybe help our community members as

well.

CHAIRMAN: And help the community members?

MR. K. JOHNSON: Absolutely.

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CHAIRMAN: Tek out the 'maybe'.







MR. K. JOHNSON:

No man, because I can't commit Mr. Johnson, but that is the

strategy.

**CHAIRMAN:** 

Yes. All right, we have another question from Zoom. What evidence supports that ground water levels and flow in the special exclusive prospective license 524 area would be similar to that determined in the Moneague area to the northeast? And I think it goes on to the ground water flow in karstic features is channeled and not always uniformed. I don't know which of you gentlemen will take that.

DR. DOUGLAS: I will try.

CHAIRMAN: Dr. Douglas, yes.

DR. DOUGLAS:

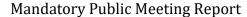
Let me just mention that the study that we carried out for the hydrology and hydro-geology – It's a very important question and what we are understanding it to mean is that, one cannot strictly predict the pathways that water flows underground because it's quite variable you know, and with several channels and so on and created cracks and other issues, and let us point out this is karstic limestone. The person asked what evidence.

The best evidence that one could have is what has been done traditionally over many years in terms of the monitoring of wells that are sunk around the entire area and there are several of them and apart from that what is done by persons actually going in caves and inspecting the entire area underground. And I must tell you that this has been done variously, but mainly by the Water Resources Authority. And that aspect of this report incidentally was written by the most authoritative person as an expert in Jamaica Water Resources Authority, Mr. Basil Fernandez.

And let me point out, the question is also pointing in a particular direction, and we understand and appreciate it which is to say you can use various substances and trace the actual pathways of how the water flows beneath the ground. You can use certain chemicals like fluorescein for example, which you can inject at certain points and then you monitor the wells over a period of time. And you see where they turn up, if they do, and you can use radioactive gold and so on and so forth

So, that part is not done as yet, but when we consulted with the Water Resources Authority, they told us, and we had to consult







with them another time, that this is something they were about to embark on, just to know, because water resources are important and you have to take every action to make certain that you protect them.

The point is this, and Dr. Richard presented it is that, the ground water resources are hundred metres below surface where the bauxite is. The bauxite is at an average of about 20-30m. There will be no impacts anticipated from the mining of bauxite. And we need to make that clear but nevertheless, any investigation that is being carried out will only be to the benefit of all concerned.

CHAIRMAN:

Thank you, Dr. Conrad Douglas. WhatsApp question here now. Bauxite is a finite resource so, why is the company still pursuing this because they will still have to find a business model when all bauxite deposits dry up, why not switch to renewable energy production?

DR. DOUGLAS:

Bauxite is a finite resource, mineral resource that is of economic importance, it is a part of our natural heritage, our patrimony, just like the non-renewables, the non-renewable resources such as our plants and animals and so on.

So, that's very important that you know if we have any value at all. And bauxite is not the only mineral that we have value you know, limestone is one, we used to mine copper in the past and various other things, lead as well. Jamaica for the small size is really rich in a number of things. And bauxite itself is rich in other variables. The red earth is of some importance in every single thing that we do in the industry in the various ways in IT, in surgery, in medicine; just about everything, you need it and you have to have these mineral resources.

So, you cannot have a modern world and a modern system – all this thing about the activities that we have: transportation et cetera, et cetera by all means, space, air, land, sea, et cetera, you need to have these mineral resources, there are no substitute for it. On the other hand, it's a decision, policy decision of any company whether you want to switch from mining resource which is integrated in production and to go into renewable energy. We can't answer that. There are several things being done in Jamaica right now in respect of renewable energy and that's important because we also know what is happening globally in terms of climate change and so on. And that's another



matter you know, and we do have a major energy policy which is now under implementation with specific target against it. So, I can't answer that question off the cuff, they would have to see

if they have any interest there whatsoever.

CHAIRMAN: Okay. Any interest in renewable?

MR. K. JOHNSON: We are an alumina producing company.

CHAIRMAN: And that's your interest?

MR. K. JOHNSON: And bauxite has proven to, so far the world over to be the

mineral from which we can economically produce alumina. It

would be great, but I couldn't speak to that.

CHAIRMAN: Thank you so very much, Mr. Kurt. And now we have another

question on WhatsApp. What is the compensation health wise

as dust will be an ongoing disturbance?

MR. G. JOHNSON: There is no set compensation of such. What actually happens is

that our policy speaks to person who has a complaint making the complaint and the doctor, person of a doctor speaks to our doctor because we are not competent in terms of moving forward after the decisions of the doctors because – Each case is

on its own.

CHAIRMAN: They go to their doctor and there is a combination between

doctor and doctor. Yes, thank you. We have a Zoom question what happens if you are on land for twelve (12) years but no title, how will you be treated? You betta go a Land Agency go

sort it out. No seriously now, serious question.

VOICE: Yes.

CHAIRMAN: A number of Jamaicans operate like that.

VOICES: They are untitled.

CHAIRMAN: They are on land for twelve (12) years but have no title.

MR K. JOHNSON: Well, it's a challenging question in that, what I am supposing, the

scenario I am painting in my mind is this landowner and land occupier have bauxite on their land and then we would need access to this property. Of course, the best case scenario is if they have a title and we certainly encourage them to pursue





getting a title because there is a process under law to allow persons who can show occupancy over a certain time to pursue and get a title for their property. Because it's difficult to do a legal transaction in respect to land without the persons being titled.

CHAIRMAN: Yes.

MR. K. JOHNSON: But the law has a prescription for persons who are untitled but

are in possession of the lands for a certain period of time.

CHAIRMAN: Yes.

CHAIRMAN: So, that would be the advice, if you are so inclined, please then if

you know your land is bauxite area – because people know right, if the neighbour has bauxite and the neighbour here has bauxite is likely that you have bauxite and if you are so minded then proceed to start getting those matters in order because it

certainly makes the process easier.

CHAIRMAN: So, my suggestion about contacting the Land Agency....

MR. K. JOHNSON: It is good.

CHAIRMAN: ...is a reasonable one?

MR. K. JOHNSON: Yes.

CHAIRMAN: All right. Let me go to Grierfield because the past signal we have

forgotten about them. Grierfield, good evening and hope you are

well. We are going to the Grierfield Church of God.

MRS. ROSE: Good evening, my name is Anita Bryan-Rose. I am a resident at

Grierfield. My question is about water. Where we live we have water from the Water Commission but not every day. So, we have to use tanks to store our water, so whenever this project 'started' and the dust 'started' affecting us what can we do to protect or what will you do to protect us when dust start falling in our water and we have no other choice, what can we do at

that time?

CHAIRMAN: Thank you so much Mrs. Anita Bryan-Rose What are you going

to do when the project starts, the dust start and they don't really

have water, what are you going to do? Mr. Johnson?





MR. G. IOHNSON: Well firstly, the first thing that we will do look at suppression

and mitigation process that is what we try to do at all times to prevent excessive dusting. As a matter of fact, we have a policy that says if the dusting is so bad, the Mining Manager is obliged to stop the mining. I would say transportation of bauxite, because the mining itself is really doesn't create dusting, it is the transportation process that does because sometimes you have spillages et cetera. So, we clean up the spillages from the trucks, we wet the roads however, however it is quite possible that there could be some excessive dusting at times and before we take the action people's water could be contaminated by dust. We happen to refill those tanks, because again, as I said before, we are looking at how to assist because in going through the community, one of the major complaints that they have is the

issue of water.

CHAIRMAN: No water.

MR. K. JOHNSON: I do not want to elaborate at this time except that the discussion

is happening intensely internally in the Company. So, we will

address that issue.

So, if I am understanding you correctly, what will happen before CHAIRMAN:

you start and while your operation, you have your trucks that wet the place, if it gets so bad that peoples tanks are contaminated then you refill them with fresh clean water, right?

MR. G. JOHNSON: Yes.

CHAIRMAN: And then there is something else that seems to be, you are

thinking about that you can't speak of clearly at this time about

water for these communities.

MR. G. JOHNSON: Quite right.

CHAIRMAN: All right, thank you Mrs. Anita Bryan-Rose. And I am still at

Grierfield, What a beautiful name, Grierfield - Aa!, Let's have the

next question or comment.

WOMAN: Okay, thank you. First of all, thanks to the team for sensitizing

> us with the proposed project and giving us a glimpse of your research findings. However, what are the specific areas where mining will be done and what are the possible areas for haul

road construction in this project area?





CHAIRMAN: You didn't give me your name so I can't address you by name.

What is your name?

MS WHYTE: Geraldine Whyte.

CHAIRMAN: Aah! Thank you Miss Whyte for those two questions: What are

the specific areas where mining will take place and then the

matter of haul roads?

MR. K. JOHNSON: Miss Whyte, good evening. The haul roads follow where mining

will proceed. So, in the south I believe if my memory serves me correctly the properties are called Bensonton or Pedro Valley. So, we will be going from there moving towards the north and in the centre through Penni and topping up Edinburgh Castle in the north. The haul roads would therefore follow along that path. So, if you imagine we are to the right of you now in the SML, we would cross somewhere near Grierfield, skirt around Grierfield and somehow come up that hill and then mine along that area into finally up to Edinburgh Castle area near Alderton. So, we are passing through all those communities. Once bauxite

is found in those areas, that's how it would progress.

CHAIRMAN: Okay, and the haul road and that work together?

MR. K. JOHNSON: Would follow, yes.

CHAIRMAN: All right, do we stay at Grierfield? Yes, we have two more

persons at Grierfield. Remember to give us your name so that I can at least speak to you by name. So, thanks again Miss

Geraldine Whyte. Please go ahead, Grierfield.

WOMAN: People who are living in the communities with asthma how bad

will the dust affect them?

VOICE: Name?

MS. BOGLE: Muriel Bogle.

CHAIRMAN: Muriel Bogle. Thank you, Miss Bogle. Persons with asthma and I

understand that because I am asthmatic myself.

MR. K. JOHNSON: Well, Miss Bogle if I may take this question. Since I restarted

here at ALCAN over the last ten (10) years we have had one person with whom we have had to do special treatment because she was such a terrible asthma sufferer, but in general, most





people based on what we do with our dust mitigation strategies are able to completely tolerate our operations. The biggest concern they have is the noise, because sometimes we may want to mine on a Saturday or we may want to mine on a Sunday, and of course, we know those days are days when we sometimes are at home or we go to church. But outside of that, in terms of dusting levels I do not foresee that as an asthma sufferer you would be inconvenienced to the point you are concerned. We will do our very best, and in fact, our best so far has proven to be quite satisfactory.

CHAIRMAN: All right, thank you. Thank you, Miss Muriel Bogle. We have

another question from Grierfield. Remember to give your name.

MR. DANIELS: My name is Kenneth Daniels. My question is this: Where the

bauxite company have land that is not going to be mined and is not occupied, is there any possibility that the people in and around the community can have access to those 'land' to help to

build up the community?

CHAIRMAN: Access to farm or access to housing?

MR. K. JOHNSON: Yes, get a clarification.

CHAIRMAN: Yes, could you ask Mr. Daniels to come back to the mike, please?

MR. DANIELS: Yes, certainly.

MR. K. JOHNSON: Speak into the mike, sir.

MR. DANIELS: Sorry about that.

CHAIRMAN: When you say access, access to the farm or...?

MR DANIELS: I said access to the farm and other development.

CHAIRMAN: Okay, access to the farm and other developments.

MR. G. JOHNSON: We have a very active what we call "tenant-farm" programme

where we have lands that we lease to farmers. And some of these lands are actually mined out lands that have been rehabilitated and so – That is a programme that we have both in Manchester and St. Ann. This area has not been excluded. We cannot at this point though give the details because we have to look at where the lands are and what are the plans we have for





the lands but certainly, we would want to have that discussion

with the community.

CHAIRMAN: And that arrangement already exists with the land?

MR G. JOHNSON Yes, that type of arrangement is available.

CHAIRMAN: You need to know the areas suitable for agriculture.

MR. K. JOHNSON: What can be added to that is that, we manage all the lands within

our communities very, very carefully and if persons have the opportunity if they see a parcel of land that they are interested in for a particular activity, they can write to Mr. Johnson to say sir, we see this land can it be leased to us for an activity. It doesn't mean that you are going to get it automatically, but certainly the request is made and once we are here and we see

what our plans are we can also consider stuff like that.

CHAIRMAN: What if somebody from outside of the community see that the

land is there and come and make an application – outside of the

communities, would you consider that?

MR K. JOHNSON: Sometimes that has been considered favourably, yes. That has

happened in the past.

CHAIRMAN: So Mr. Daniels, I think you got the answer there. They have had

these arrangements in the past and this time around they would of course, discuss and go ahead. And you say it's called "tenant-

farming programme"?

MR. G. JOHNSON: Tenant-farming programme.

MR K. JOHNSON: Yes.

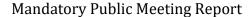
DR. DOUGLAS: It's one of the most outstanding programmes that has ever been

carried out in the entire island of Jamaica. And this was led by ALCAN as a part of what they did in relation to the in the heart of what it did in relations to the most outstanding breed of beef and dairy cattle for which Jamaica is internationally renowned. And so, they engaged several persons in around the communities in which they operated and they initiated this programme with great success creating livelihoods for the

people who chose to engage in farming of various kinds.

CHAIRMAN: I think Mr. Daniel said about farming and other uses.







DR. DOUGLAS: Yes.

CHAIRMAN: Are there other uses that the land could...

MR. G. JOHNSON: Yes.

CHAIRMAN: You want to touch briefly on that for me?

MR. K. JOHNSON: Because it's not strictly mining and we are discussing and we

> are discussing potential mining, but by way of example, for persons who live in Williamsfield in Kirkvine Manchester, they have been engaged, lands have been leased to persons for nonfarming activities. Near to the Plant in Ewarton persons have received lands that are not bauxite mined lands but are under

the Company's control for other commercial activities.

CHAIRMAN: Not farming alone?

MR. K. JOHNSON: Not farming alone...

CHAIRMAN: So, they have to come and sit and have the discussion with you?

Yes, make the request, we don't know all the answers, but we MR. K. JOHNSON:

> tend to have a lot of land under our control and if we have land it's not necessary all of it - only 8% we are actually going to be mining. So, there is a lot of land that is available but we don't know yet. So, we are encouraging persons to think about it, make their requests known, and in time we will consider,

because there is lot of opportunities to sit and discuss.

Thank you, Mr. Kurt. Where do I go now, do we have any more **CHAIRMAN:** 

> questions? We are still at Grierfield, wow! There is a lot of people there, Grierfield you are leading here, man. Could you

just say your name?

WOMAN: I represent the Grierfield Farm Group. There are a lot of young

people in this area and there is no recreation area for these young people. I am wondering if Windalco will be kind enough to do something for these young people by providing an area where they can have recreation? Cricket, football and other things, and even an area where they could have a building where they could go for evening classes and so on, because this is a very

large area and these young people really need help.



CHAIRMAN: Thank you. I didn't get your name, though. Anyway. This is an

important one. The young people.

MS. STENNETH: June Stennett.

CHAIRMAN: Miss June Stennett, thank you so much. Recreational area for

young people.

MR. G. JOHNSON: That's a very good question.

CHAIRMAN: Yes.

MR. G. JOHNSON: I can tell you now that we have already taken the decision to

make a play area for the Grierfield Basic School because all they

have are two tyres.

CHAIRMAN: Two what?

MR. K. JOHNSON: Tyres.

MR. G. JOHNSON: Tyres, used car tyres.

CHAIRMAN: Used tyres? That's all they have?

MR. G. JOHNSON: Yes. So, we have made that decision already in consultation with

a...

CHAIRMAN: . ...the school.

MR. G. JOHNSON: ...members of the local community there. As regards a play area

is something that we are willing to explore and we will be meeting with a number of community groups including that group. We are interested in the youth, she spoke about the

evening classes.

CHAIRMAN: Yes.

MR G. JOHNSON: We have what we call "The second chance programme" where

we look at students in the operating area who did not do well at school and we had evening classes in .C.X.C . First of all, we used to sponsor CSEC subjects, long ago and the Government started it then piggy back on the programme, believe it or not it started at ALCAN back in the day. And then we went to the "Second Chance Programme" to give some people some second chance. So, we had evening classes for people who wanted to come and



we have a few very good successful stories from that programme. That is something we would love to look at in that area. So, let's have the discussion, we are ready to sit and discuss with you with your community group as we always do in our operating areas.

CHAIRMAN:

So, for Miss Stennett, you would encourage the members of the community to sit and discuss because as recreational space with a space for your evening programme, your second chance programme, is very, very important particularly now.

MR. G. JOHNSON:

Exactly. And that group is also a member of the Schwallenberg Windalco/JBI Joint Community Council Benevolent Society. So, we can have the discussion at that level.

CHAIRMAN:

That's a long name.

MR. G. JOHNSON:

It's a long name because it's a lot of people coming together.

**CHAIRMAN:** 

But let me just thank Miss Stennett for putting that on the table because the young people just need a space; and the evening classes are so necessary particularly now.

Where do we go now? One more from Grierfield. Grierfield, just let me finish talking and then you go to the microphone say your name the first thing, and then we will move from there. Thank you so much Grierfield, go ahead.

MS. KIRKLAND:

Aneshia Kirkland, I am a resident of Grierfield. We are low on employment here, I am wondering how will this impact us employment, and what will happen to the flora and fauna as we have two endangered species?

**CHAIRMAN:** 

All right, thank for that Aneshia Kirkland from Grierfield. The employment?

MR. G. JOHNSON:

Miss Kirkland, as I had indicated before, whenever time we go into a new mining area, we specifically, deliberately seek out persons in there to be employed in a number of different areas, what I cannot give you is the numbers. What I can tell you for sure is that we will be employing people from within SEPL once we get the approval to mine.

CHAIRMAN:

Mr. Glendon, what kind a job? The next question soon be what

kind of jobs?





MR. G. IOHNSON: We have drivers for trucks, we have scale operators, blenders,

excavator operators...

CHAIRMAN: Blenders?

It's looking at the different bauxite percentages and blending it MR. G. JOHNSON:

together to send it to the plant, it's not so casual as it sounds.

CHAIRMAN: It's not casual at all, it's scientific if you ask me when you talk

about a blender.

MR. G. JOHNSON: So, we will look at what our needs are and we will certainly

> apply that, but I can say of a certainty because we have a direct strategic policy that says, once you go into that area as a guest you need to do all that you can and employment is one of the things that - Education and employment. Those are the two

main focus.

And she asked about flora and fauna. CHAIRMAN:

DR. DOUGLAS: Yes, me?

CHAIRMAN: Yes, it's you that, Dr. Douglas.

DR. DOUGLAS: Yes, that's a very, very important question and I am so glad that

> the point went across to the extent that those two (2) particular species were mentioned by Dr. Richards during his presentation. One was the yellow billed parrot, which is a very important species of bird for us. And when we went out in the field, the Scientists who did that study they did in fact identify them, not just one or two, some detailed photographs to show flocks up in trees and so forth. The good news is, if we can say it's good news, is that their habitats are in the vegetated areas, on the hillocks or hillside and not on the low-lying areas.

CHAIRMAN: Because the bauxite is not on the hillocks.

DR. DOUGLAS: Yes.

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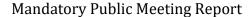
CHAIRMAN: It's on the flat, relatively flat area?

DR DOUGLAS: Yes. That's correct. So, that will help tremendously. But

> whatever is necessary in terms of all the precautions to be made to protect those species will be done and the same thing applies

to the plant species that was identified.







CHAIRMAN: So collect some of the plant species..?

DR. DOUGLAS: Yes.

CHAIRMAN: ...do what with them?

It is called "creative conservation". So, before any mining starts DR. DOUGLAS:

> you identify these species exactly where they are located and then you develop a plan towards training various persons you know, as to how to treat with them in terms of picking them up and relocating them to other places in the same SEPL that will not be impacted and you have another plan to create a greenhouse or greenhouses and you put them temporarily, and once mining is finished and rehabilitation done you can take

them and put them back in there.

CHAIRMAN: I hope that answers your question and thank for your concern

Aneshia Kirkland. We do now go back to Zoom.

"The EIA has spent a considerable amount of time describing the baseline conditions but not enough details on impact assessment, where are the detailed management plans stating

how will this actually be done?"

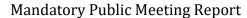
DR. DOUGLAS: It's a very fair question. You have to do a comprehensive base

line assessment to know what you are dealing with, and as Dr. Richards described in the presentation, and it's documented clearly and in great detail in the EIA itself, to look at all the biological and physical resources that's there, we had to look at the people where they live, how they live, the local economy, as well as the historical and archeological heritage resources.

So, having done that, that now gives you the sort of information that you need to develop the management plan and management strategy. And this is something that cannot be done totally and exhaustively at this stage, you do it as you proceed. So, that the last part of the presentation you will recall, speaks to the whole business of an environmental monitoring and management plan and it lists all of the parameters that must be monitored and managed. At that stage you begin to develop these plans in great detail.

Now should NEPA/NRCA choose to grant UC Rusal an environmental permit, they will be putting in all the conditions that they require to be satisfied in the development of these







plans. So, it's not in detail at the stage of the EIA but at the point of permitting, NEPA will give specific timelines to every single one of these conditions which must be satisfied. And all these plans must be developed and produced and approved by them, implemented by the proponent as they proceed. It's a very, very critical thing. It's a long involved process. There is also another part of it which they usually have which most people are not even aware of, are taken into consideration – a closure plan, that's usually a part of the conditions.

**CHAIRMAN:** 

What's a "closure plan?"

DR. DOUGLAS:

A closure plan means in the event that you have to close the operations what are the steps you will take in respect of, for example, rehabilitating what is there and outstanding. How will you dispose of any equipment? How will you dispose of any material? Anything that could be hazardous in terms of any lubricants and so on and any chemicals that you might have to manage in the course of the operation. So, as Dr. Richards pointed out at the beginning, this is just a summary. When the permit is issued should a permit be issued, another phase is opened up for action by the Company and its Consultants.

CHAIRMAN:

Thank you. And thank you for your question. We are going back to Zoom for yet another question. "The EIA by Conrad Douglas and Associates is almost the same as the one they did for SML 173 Terms of Reference to damage, Compensation, mitigation et cetera. Why does it seem that all potential negative impacts are being downplayed and benefits highlighted and mitigation measures presented as easily accomplished?"

DR DOUGLAS:

I think that question is an unfortunate one. We are not downplaying anything. This is an objective scientific investigation and we report on what we found during the course of the investigation. And we propose the actions to avoid or mitigate a particular impact. Because of the nature of bauxite itself it is extremely difficult to separate and differentiate mitigation methods. The potential impacts, in most instances, are usually quite similar. So it's not a question of downplaying or anything, these are potential impacts, and we need to stress 'potential' and in the same way we need to say these are proposed mitigation strategies. And these will have to be developed further and approved by the regulatory agencies as we proceed.



So there is no bias just to answer the question at all in what we do, we are scientists, engineers and planners and have to make certain that whatever we do is transparent and is subject to the most rigorous of analysis. As long as they are objective as well.

**CHAIRMAN** 

Thank you, Dr. Douglas. We have yet another question coming in from Zoom.

"Rusal has not lived up to their word in other communities that they have mined, so who says they will do this in this area?"

I wish you had said in what way so I could ask them specifically in what way they haven't lived up to their word. I am not certain how you are going to deal with that.

MR G. JOHNSON:

I can't answer that question because I am not sure....

CHAIRMAN:

Yes, if you get a chance just give us the details of what you mean so at least you can be specific. Let me go to the WhatsApp. You have Jeffreyville, you want me to go to Jeffreyville? Okay, let's go to Jeffreyville, the – Just remember to say your name before you start. Thank you for joining us.

MISS TRAIL:

Okay, my name is Tashana Trail, and I am from Gibraltar. My question to Windalco. Our young people I suspect, and other persons here would be in your employ during their mining operations. I want to know about the health care packages that you guys have for them because one of you on the panel mentioned something about those that are in the mining area specifically will be most affected. Whilst we understand that, I also would like to make a proposition. Because as you will notice throughout the communities when they mentioned, the question that keeps coming up is the concern about the dust and our health.

So, my proposition to you is, is it possible at like six months intervals for you to do checkups in our communities? What are you putting in place to ensure that our residents are at optimal health and that they are not essentially – because we have very nice clean fresh air down air, and everybody loves it this way, most people come to country for that reason and we just want to keep it that way...

CHAIRMAN:

All right.





MISS TRAIL: ...and if we can't keep it that way, we need your help to ensure

that our residents are in the absolute best of health. So, how are

you going to be able to support us in that endeavour?

CHAIRMAN: Thank you, Miss Trail, very important point you have raised.

> Miss Trail. Tashana Trail from Gibraltar speaking about health care packages who are in your employ, and then the six-monthly check up and how you going to move with that. Let me go to the HR person Miss Trail, he is best suited, Mr. Glendon Johnson,

Human Resources Director.

I particularly like the fact that she has put for the proposal. MR. G. JOHNSON:

Firstly, we do not have a healthcare package for employees as

such, we do have a health plan.

With respect to check-ups every six months, is something we can look at, in the past we have had mobile clinics that we have in other areas so it's something that we can explore. We are open to that kind of proposal. So again, let's look at it. But I can't definitely say - I didn't have that in my plan, we have as I said some things, and we are willing to sit at all times, discuss and arrive at what it is that we can do. So, we are willing to look at it,

certainly.

CHAIRMAN: All right. I am glad to hear that. And Miss Trail, I am just so

> impressed when a young person can make this kind of contribution, you know. So, we are to take one from Jeffreyville, and then we go to our phone call after that. So, Jeffreyville

remember to say your name.

MS. CHAMBERS: Good night my name is Alma Chambers, and I am from Gibraltar

> District. My question is a long-shot question. After the mining and those holes that they have mined out from, what will they do to you know, cover those holes or to make sure those holes are maybe use for wells or water or something, what will they

do after mining with those sink holes?

CHAIRMAN: Thank you, Miss Chambers. You hear what she call them "sink

holes", what oonu goin' do wid them.

Miss Chambers good afternoon. MR. K. JOHNSON:

CHAIRMAN: And Miss Chambers, I should tell you if you didn't hear before,

this gentleman is Mr Kurt Johnson, the Mining Manager, best

person to answer.





MR. K JOHNSON: I invite you to come on a tour with me Schwallenberg anytime

you feel like and I will carry you to what happen to those holes as you described them. But by law we can't leave the holes in the ground, the law requires that at latest three years after the Government agrees that we mined out the area that we fill them in, shape them, not holes anymore, sometimes they become play fields, sometime they become housings, sometime they become pastures, sometime they become farming holdings. So, when we do hopefully, at the end of the process we will not be leaving any

sink holes or wells in and around Grierfield.

CHAIRMAN: And you say you can see it in Schwallenberg?

MR. K JOHNSON: Yes. Anytime she wants to visit with a contingent, we can take

them on a tour so that they can see first-hand the kind or work

that we do.

CHAIRMAN: That's important.

MR. K JOHNSON: Yes.

CHAIRMAN: That would be important for them to see. All right, thank you

very much.

MR G JOHNSON: May I add?

CHAIRMAN: Yes, go ahead, Mr. Johnson.

MR. G. JOHNSON: May I add that what we are also hoping to do is to replicate the

use of some of these mined out pits, for water harvesting for greenhouse farming as we have done in Schwallenberg and

Manchester.

CHAIRMAN: Okay.

MR. G. JOHNSON: And I think that it would be of great economic benefit to the

community if we do that. So that is...

CHAIRMAN: Thank you Mr. Glendon Johnson. I do believe at this time we

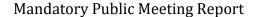
have Lisa Hanna, MP for Southeast St. Ann, thank you for joining

us, MP.

MP. HANNA: Good evening Fae, good evening to the panelist and the

members from UC Rusal and particular good evening and special good evening to the residents of Harmony Vale,







Grierfield and Jeffreyville. My connection was very very bad where we were so we weren't able to do the video call.

CHAIRMAN: we are good with the audio though, you may go ahead.

MR. HANNA:

Sure. UC Rusal is very familiar with my sentiments about their proposed mining in Bensonton and other areas in Moneague.

They already have mining operations taking place in Moneague.

I am very, very concerned about it, at a grave digging yesterday up in crossroad up in Bensonton, I was discussing it with the residents, and I have already sat with Dr. Douglas' team to express how we feel and how some of the residents'.

The concern stem around agriculture, because Bensonton is an agricultural belt, we have small cash crop farmers there and from our historical experience and if you look at southwest St. Ann even though the technocrats speak about reclamation of land, it never comes back to its original esteem and pristine soil. So, we are concerned about that.

The other thing we are concerned about is just the upheaval. If it is going to be some 22 years, that is significant upheaval and I think sometimes even some of the older residents believe that it's going to mimic the old type of Reynolds Plant that used to be down in Lydford. So, it's tremendous technical transfer now as it relates to bauxite mining. Because it's not a lot of job that's going to be produced by the company. And we need to have a larger discussion and a more in-depth, intimate discussion in the communities so they can really understand is going to happen not only with the production of the bauxite and the mining of the bauxite but what really happens with the expatriation of the funds when it leaves the country.

CHAIRMAN: Okav.

MP. HANNA: We have a very, very close-knit community up in Bensonton and

places like Moneague. Yes, farmers are able to get small parcels of lands in Grierfield and in Harmony Vale now if they ask. But the other issue, and for years Windalco has a well going up to Harmony Vale and the resident don't have access to it. So, we

need to have some very, very honest conversation...

CHAIRMAN: Could you just give me a break with this one. Is there a well that

the people don't have access to? Mr. Johnson?







MR K. JOHNSON: Good evening MP Lisa Hanna.

MP HANNA: Good afternoon, Mr, Johnson.

MR. K JOHNSON: The well that you refer would it be the Alderton?

MP HANNA: Yes, the one going – yes.

MR K JOHNSON: But you know the situation with the Alderton Well. Windalco

use to operate that well as part of the dairy operations and for operational efficiencies that well was discontinued, it was never

a public well.

MP HANNA: We know that. But many, many times – The same lady who

asked about access to water you yourself said that there was no water leading up to the area. Many times the residents say can we get access to the well because it would help with the water distribution – I am hoping the community relations with UC Rusal in their current dispensation of the constituency is not very good. And I just have to speak the truth in this meeting.

CHAIRMAN: All right thank you Miss Hanna, we do have a number of other

people who would like to have an input here. Member of Parliament Southeast St. Ann Lisa Hanna. Could you address the need she has raised which is, you need to have more meetings with the community? I think she has said or intimated that you

hadn't said enough.

MR, K JOHNSON: But through you Moderator let's address the comments the MP

made about dislocation of farmers and other things. Let's first deal with the water. As I said before, this area is going to be approximately 20km from where we are operating. Logically, logistically there is no water infrastructure in that area of St. Ann - no fault of Windalco mark you. We used to have a well in that area that has discontinued a long time now because of

operational...

CHAIRMAN: And she is asking to restart it now to help the community.

MR K JOHNSON: And some of the options have to be looked at now. Remember

you know, we are seeking permission to mine here. If we get permission to mine we have a duty under law to suppress the dust to keep the air at the levels that it is now. One of the ways to do that is to rehabilitate this existing infrastructure and therefore then make this part of the strategy going forward. We







currently have no operations there save and except for the small diary operation.

As it relates to farming, and in Bensonton, we understand and are committed to, as we have done in other areas, where farmers are concerned we will provide alternate lands if their lands are required for bauxite mining, and return them as quickly as possible.

The comment about the lands not being in terms of yields prior to meeting, I challenge that because we have greenhouse farmers where lands are yielding more than they were before. Of course, when you leave farmers alone, some of these farmers are not wealthy and hence because its topsoil they don't apply the amount of fertilizers that we would have applied when we originally returned the lands to them and hence the yields fall but it is not a function of the ability of the lands to yield.

CHAIRMAN: So, it seems then that some more meetings with members of the

community to help them to learn how to get more yields from

the land.

MR. K. JOHNSON: Absolutely.

CHAIRMAN: And her point is, you need to have more meetings – That's what

she is saying.

MR G JOHNSON: Let me just address that point.

CHAIRMAN: Yes.

MR. G. JOHNSON: Let MP be assured that – we have not yet moved into Bensonton

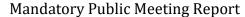
by the way, but we have started the process in terms of engaging the community, and they are a part of the Schwallenberg Council I mentioned earlier on. And we will certainly be having more frequent interaction with the community but we are not there yet, we are seeking to go in there, we have started the process and – MP Hanna, you can always reach me when you can, we are willing to sit with you, we are willing to engage you in whatever process because– I think both of us are sharing the same

objective which is development of the community.

MR K JOHNSON: Absolutely,

MR G JOHNSON: Let's have further discussion on that.







CHAIRMAN:

Thank you. Just before I go back to Jeffreyville Dr. Conrad Douglas has an input.

DR. DOUGLAS:

Thank you so much Madam Moderator. Just to express our gratitude to MP Hanna for meeting with us, as a part of the voluntary consultation process in which she did express some of these concerns and they are documented and they are a part of what we have to present to the regulator in the process.

As pointed out by Mr. Johnson, this whole process of mining and rehabilitation and so on, presents a number of opportunities and both Johnson's pointed out as they went through the process.

In this time we are talking about issues to do with climate change and water is a very serious problem and it is only going to get worse to the extent that people are going to be scrambling like they never did before all over the world for water and water. Mining does present opportunities for one to create artificial systems to store and to harvest and that can be enormous benefit to the community. So, I think that they will as mentioned earlier, they have taken it into account and will be taking it into account.

Just to mention a particular point and I mean this is about the whole business of objectivity again. We don't speak about restoration of mined out land, they cannot be restored to the condition in which they were found originally. We talk about reclamation of the area and sometimes it's a bit bigger, and we speak about rehabilitation and that is the operative word, "rehabilitation". And as Mr. Johnson pointed out the rehabilitated land when properly managed can yield a greater amount of produce or increased productivity. So, that's a possibility.

And then just to close off this with a final comment, what I am hearing and what we noticed is that, more and more consultations which the first Mr. Johnson spoke about, were needed, they are not there yet so, I am going to suggest that they begin to structure them from now.

CHAIRMAN:

Thank very much. And Just before I go over back to Jeffreyville Methodist Church. Please remember that all questions and comments will form part of the official record of this meeting, all





of these comments will form part of the official records of this

meeting.

Jeffreyville ,please say your name and then let us hear your

question or comment.

VOICE: Yes, good evening to the platform party. I believe you are doing

a very wonderful job.

CHAIRMAN: Thank you, sir.

MR. HINDS: Well, my name is Orane Hinds and I am from the wonderful

parish and the district called Clover Hill

Now, I am no expert when it comes to mining, but I believe when

one is mining blasting must take in consideration.

DR. DOUGLAS: No (softly)

MR. HINDS: Now, my property you may look and say that I am not in close

proximity to where you will be mining. So now, the blasting

process I am not sure...

CHAIRMAN: Hold on there. Mr. Hinds, you can hear me?

MR. HINDS: ...how far will that go if it will affect me and I wouldn't want it to

be a case where after you leave our community in a couple years' time my house start to 'cracked' up. So, could you just inform me

and let me know how far the blasting will take place?

CHAIRMAN: I am going to them right now with it, sir. Blasting. Mr. Kurt,

blasting will occur?

MR K. JOHNSON: Good afternoon, Mr. Hinds.

MR. HINDS: Good afternoon.

MR. K JOHNSON: Well, let me first dispel something. When we mine we don't

engage blasting. If blasting is required it is normally associated with work in the limestone which is construction of the haul roads if we meet upon very difficult material, and sometime in reclamation, when we are shaping the pit sometimes the dozers are unable to cut the limestone and hence we might have to

blast.





I can't speak specifically to where your house is now relative to where the road go because Clover Hill, if my memory serves me, correctly is currently outside of current discussion with where the proposed road alignment would be. So, I am not expecting at this time that blasting would be of any material concern to your house or household because we would be crossing further south of Clover Hill near to the Grierfield area if we are allowed permission to turn this area into a mining lease. So, you should not have any concern where blasting is concerned.

**CHAIRMAN:** All right, thank you, Mr. Johnson. We have from WhatsApp...

MR. G. JOHNSON: A point of clarity.

CHAIRMAN: Sorry?

MR. G. JOHNSON: Just a point of clarity. If we are doing blasting there is what is

> called a "pre-blasting" survey where an independent inspector comes in and inspects the structure, take pictures and have them there and after blasting they come back, take pictures to see if there is any structural damage. If there happens to be any damage at all then, we now enter into negotiation to make sure that we bring back your property to the original state. The

distance I don't remember readily. Kurt can you elaborate.

MR. K. JOHNSON: Yes, and to add to that. Thank you, Mr. Johnson for reminding

> me. By law we have to design the blast in such a way to keep you safe. You will hear the sound, you will feel the vibration. By law we are required to design the blast in such a way that the vibrations at the given distances away, are at levels that would not cause structural damage. By law, we are required to survey everything that is within the 5-mile radius off the proposed site

and keep those vibrations within the permissible level.

So, where we are crossing again, it's more than half mile away from where you are and hence I don't think if blasting were to

occur, you would be affected.

And also importantly, because we recognize that people can MR. G. JOHNSON:

hear this noise - you may have old persons in the community who are ill, we have to give notice that we are going to be doing blasting. That if somebody is very ill they can be taken out for

the period of time. And that is important.





CHAIRMAN: I am going to Harmony Vale Baptist Church, remember to give

your name.

MR. RILEY: Winston Riley, Harmony Vale Baptist Church. My question is,

what when mining is taking place in this area, is there any plan

for relocation of resident or church or school?

MR. K. JOHNSON: Mr. Riley, good afternoon and thank you for your question, sir.

> The matter of relocation of any structure, church, school or homes depends entirely on whether bauxite is on the property and what quantity and also if we can come to a mutually satisfactory agreement with the occupier of said household or building. So for instance, if there is a church and bauxite is under the church it is more than likely that we are not going to go and remove the church. It has happened in the past but it is something we would trying our best to avoid. If a householder is on property that has bauxite bearing lands, and we deem that it is insufficient quantity to make the acquisition a viable one then we would have as we had said before, a discussion, a mutual discussion where we sit down and we come to an agreement about the price and the other things associated with

said sale of properties to allow access to mining.

CHAIRMAN: Thank you so much Mr. Riley, and I think we have a WhatsApp

question here, so let me.... We are coming near the close of this

virtual meeting.

"Productivity of the land can never be significantly restored for people or the existing ecosystems. Which tree can grow in 24 inches of soil? You have highlighted agricultural productivity but failed to mention the prospect of restoring ecological

productivity "

DR. DOUGLAS: We pointed out from the very outset how Jamaican bauxite was

discovered. And it is simply a matter of the fact that it does not support the growth of large trees. And when Sir Alfred was about to plant bananas they wouldn't grow at well so that's why he investigated it. Government Chemist at the time, Mr. Innis, carried out the analysis and found that this was rich in aluminum. To confirm this he sent it to England and England found the same thing and said you might not be able to grow bananas but you soon be able to produce airplanes which is one

of the things that we use aluminum metal to do.

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CHAIRMAN: So the short answer then, is that trees don't grow in soil where

there is bauxite?

DR. DOUGLAS: Generally...

CHAIRMAN: Am I understanding it clearly?

DR. DOUGLAS: That is the point, perfect. But in respect of the other questions

about restoring, we spoke about the matter of restoration, rehabilitation and reclamation. Rehabilitation when you do it and it is done properly you can in fact get production and productivity that was even higher than what existed before and the fact is that they produce a lot of vegetables and so on and so

forth.

In respect of the species, grass species. Again, you can get productivity that supports the cattle that we spoke of, and to the extent that you have excellent beef cattle, excellent dairy cattle

as well.

So, the fact of the matter is that, yes sometimes you don't necessarily get the same level of productivity for the same type of crop, but you do get productivity for some types that might be

even greater than what you had before.

CHAIRMAN: So, putting in you callaloo or you tomato that should not be a

problem.

DR. DOUGLAS: Cabbage and a whole host of other things and so forth.

CHAIRMAN: But big trees – Well, I was looking at some of the pictures and

really it is flat.

DR. DOUGLAS: Sweet potato and a lot of other things.

CHAIRMAN: But not big trees in that environment?

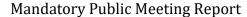
DR. DOUGLAS: (Nods head).

CHAIRMAN: All right – Am I to go to that WhatsApp question?

DR. DOUGLAS: And in terms of the ecology, it an important part of the question

which the person asked: It's not impacting – Grassland does not host a great amount of biomass nor a great amount of biodiversity. It's very important nevertheless, because there are







some species there that form food for other specie there such as birds and so on. So, what we have found from rehabilitation is the amount of, let's say species that was food for others increased beyond what was there previously and the level of bio-diversity or types of species was even greater than what was there before.

CHAIRMAN:

All right. Is that it? So, we are at the final question? Yes, we are at the final question. And we want to thank everybody who participated. But this question is: What will be the economic impact of this mining compared to the loss of income of approximately 2,000 farmers? Mr. Johnson?

MR. K. JOHNSON:

What will be the ...?

**CHAIRMAN:** 

"What will be the economic impact of this mining compared to the loss of income of approximately 2,000 farmers?"

DR. DOUGLAS:

Madam Moderator, let me point out that this question has come up indirectly in a number of ways throughout this virtual meeting, you know, but we have not paused to look at it. And one of the things that we need to recognize that during this pandemic which has been with us for a long while now and which will be with us from all indication for some time to come. The bauxite sector, mining was the number 1 and alumina production - The number 1 sector in Jamaica's economy throughout this time when tourism is down flat on its knees. So, if we didn't have it we would be in serious trouble. And this is why, I think most of us agree now in the society, that we need to diversify our economy. This is one of the parts of the economy that is already speaking to diversity. Remember that bauxite alumina was the number 1 sector in Jamaica's economy for a long time up to 1974 and is still a critical player. It has always been among the first three sectors in Jamaica's economy. There is no question about its importance. It is a foreign exchange earner. It is a vertically integrated industry which means that you make alumina from bauxite, the alumina you sell overseas and you make it into aluminum and the demand is worldwide and of great importance.

So, it almost guarantee you, it doesn't suffer from viruses to the same extent for example, that other activities you know, like tourism.



In respect of the 2,000 farmers that will be displaced, dislocated or will lose their livelihood as a result of this activity. It is not mutually exclusive, as far as mining, farming and other activities are concerned. And all the policies, procedures and steps will be taken and have been taken in the past to ensure - there is minimum impact on that. In fact, it could prove to be beneficial as we have been pointing out from time to time. So, we must face the reality of the situation, and as was presented. We must make certain that we do everything to maximize any potential positive benefit from what we might be doing should a permit be granted.

CHAIRMAN:

Giving you the final word then, Mr. Johnson?

MR. K. JOHNSON:

To support Dr. Douglas, and I don't want it to escape us. Where we are proposing to start the new lease, most of the lands that are there that bears bauxite now are unoccupied. They are unoccupied lands, most of the acreages and if I was to quote a percentage out of my head, more than 80% of the lands on which bauxite has been found thus far is unoccupied.

DR. DOUGLAS:

Just to stress the point a little further. Dr. Richards stated at the beginning you know, the place is sparsely populated. I am just supporting the point made by Mr. Johnson, and if you look at the images you will notice there were a few ribbon developments along the roadways that are there and that's the reality, that's what we found from the investigations.

CHAIRMAN:

Let me thank all of you: Dr. Conrad Douglas, Executive Chairman and Principal, Conrad Douglas and Associates Limited;

Dr. Mark Richards, who did the Environmental Impact Assessment Presentation, Technical Director, Conrad Douglas and Associates Limited

Mr. Glendon Johnson, Human Resources Director at UC Rusal, Alumina Jamaica Limited; and

Mr. Kurt Johnson, Mining Manager, UC Rusal Jamaica Limited. And;

We want to thank you all, especially those persons who gathered at:

Harmony Vale Baptist Church





## The Jeffreyville Methodist Church

#### Grierfield Church of God

Thank you so much for your time. This is important to you and your community and for your future. Thanks a lot.

#### CLOSING REMARKS

Thank you for joining us this evening for this 'mixed-virtual' public meeting. You are being reminded that while the time may not have allowed for all questions to be posted or answered in this live meeting, all questions and comments received have been recorded from all media platforms and will be addressed and included in the verbatim records of this meeting which must be submitted to NEPA within seven (7) days of this meeting. Further, you are allowed an additional twenty-one (21) days to submit questions to the National Environment and Planning Agency via

Electronic Mail – applications@nepa.gov.jm

Mail – 10 Caledonia Avenue, Kingston 5.

All questions received will be submitted to the Environmental Consultant and responses must be provided by them and submitted to the National Environment Planning Agency.

Remember that the Environmental Impact Assessment Report and its companion documents may be accessed at the following locations:

1	National Environment and Planning Agency's Documentation
	Centre, 11 Caledonia Avenue, Kingston 5
2.	And the following locations in St. Ann

- 3. Harmony Vale Basic School
- 4. Bensonton Postal Agency
- 5. **Emanuel Wisdom Centre**
- 6. Praise Centre Church
- 7. Mount Waddy Primary School
- 8. **Jeffrey Ville Basic School**
- 7. St. Ann Parish Council, St. Ann's Bay





9.

8. NEPA's website at www.nepa.gov.jm

> Conrad Douglas & Associates Limited's website at www.cdaestech.com. Again, thank you for your participation. Remember to observe the COVID-19 protocols and have a good night. And I would like to thank a young lady who was very helpful in ensuring the Teleprompter was up, it's Lue-Ann, thank you for your assistance it was really, really very helpful.

> Goodbye everyone. Walk good, tell them other one howdy-doo.

### **ADJOURNMENT TAKEN**



### Appendix XIII: Questions and Comments Raised - Zoom Chat

17:21:34 From Randall Richards to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): His audio isn't very clear

17:21:46 From Randall Richards to RJRGLEANER COMMUNICATIONS GROUP(Direct Message) : Sounds a bit distorted

17:22:12 From Randall Richards to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): Thank you!!

17:39:53 From Lisa Hanna to RJRGLEANER COMMUNICATIONS GROUP(Direct Message) : Good Evening Everyone.

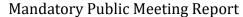
17:40:20 From Johanna , to RJRGLEANER COMMUNICATIONS GROUP(Direct Message) : I can't see the screen

18:18:06 From Moya Fagan to RJRGLEANER COMMUNICATIONS GROUP(Direct Message) : Good day. Is there a reason the meeting is locked?

18:21:43 From estherfigueroa1 to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): This EIA by CD&A is almost exactly the same as the one they did for SML 173 in terms of reference to damage, compensation, mitigation etc. All potential negative impacts are down played and benefits are highlighted and mitigation measures are presented as easily accomplished. Has CD&A ever done an EIA that has not promoted the interests of the industry that is paying them to do the EIA?

18:25:11 From Denyse to RJRGLEANER COMMUNICATIONS GROUP(Direct Message) : Rusal has not lived up to their word in other communities that they have mined in so who says they will do this in this area.

18:30:08 From Ludlow Jones to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): The top soil also includes microorganisms, not only minerals. How are these kept alive during the 3 years?





18:35:10 From Michelle Topping to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): Good evening, How will Windalco seek to prevent mining activities from affecting the stability of the Declared National Monument Edinburgh Castle? What measures will be taken to protect it and other identified historical sites in the proximity of the proposed mining area?

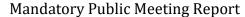
18:40:17 From Ludlow Jones to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): What is the level of ex-post evaluation of the Mining areas has been done? Ex-post evaluation relates to an assessment of what actually happened vs what was proposed or planned and looks at the causes and what modifications need to be done to ensure mitigation or avoidance in future. Some attempt was reflected in the EIA paper but is piece-meal (so as to support particular points).

18:41:35 From Dahvia Hylton to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): Hi, There are some concerned citizens trying to get in that cannot. The meeting is closed. As this is a public meeting this is unethical

18:44:16 From Damian Nesbeth to RIRGLEANER COMMUNICATIONS GROUP(Direct Message): Why is this mining project soley monitored and managed by Windalco? Why is it that the regulators are not directly involved in monitoring? It is absurd that Windalco is made to supervise itself.

18:44:31 From Al Russell RIRGLEANER COMMUNICATIONS GROUP(Direct to Message): Good evening, Ms. Hanna, Member of Parliament is on the call and would like to ask a question.

18:47:20 From Ludlow Jones to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): Diversification of income is important for Jamaica. The largest herd of Jamaica Hope is now managed by Windalco. This world-famous breed has taken us over 100 years to develop. However, the total population size is at critical levels for maintenance. What are the requirements of their contract with GOI that ensures that the herd management of this herd is in accordance with national objectives?





18:49:10 From Dahvia Hylton to RJRGLEANER COMMUNICATIONS GROUP(Direct Message): Speaking on the non-renewable resource that is bauxite, why don't we start recycling our aluminum products instead of continuing into the dying industry of bauxite mining?

18:49:18 From Camiel Brown: Good afternoon.... i have seen on television where alot of persons complained about their loss from mining. Are you sure you guys are just telling us what we want to hear...

18:50:32 From Gynelle Findlay to RIRGLEANER COMMUNICATIONS GROUP(Direct Message): what happens if you are on land for more than 12 years but have no title. How will you be treated

18:51:23 From RIRGLEANER COMMUNICATIONS GROUP Al Russell(Direct to Message): Can you send a number?

18:51:45 From Dahvia Hylton: Continuing the point of bauxite being a non renewable resource. The industry is dying and recycling our aluminum products would be far more effective, and takes 90% less energy. All around better for the environment

RIRGLEANER COMMUNICATIONS GROUP(Direct 18:51:47 From Al Russell to Message): she is on the call

18:53:51 From Al Russell RJRGLEANER COMMUNICATIONS GROUP(Direct to Message): She is currently on the Zoom call

18:57:28 From Lisa Hanna: Good evening everyone. As I have already expressed to UC Rusal we are VERY concerned about the mining which may take place in these areas. There is already mining taking place in Clapham and other areas Moneague already. Perhaps the panel should ask how those residents are feeling with the company and their community relations? Bensonton's agriculture is going to be severely affected. Just go over to SW ST. ANN and take a look at how the place looks over there. Everything has to be discussed with the head office in Russia







19:03:54 From Danuta Radzik to RIRGLEANER COMMUNICATIONS GROUP(Direct Message): I noticed there was no medical expertise given on quantity and quality of dust which will be released into the air and what levels will contribute to respiratory problems. This evidence must be available. How will the wetting be done, how often and are there internationally accepted standards which can be shared

19:04:35 From Lauren Creary (JET): https://www.jamentrust.org/new-publicationred-dirt/ - a link to JET's multidisciplinary review of the Bauxite Industry

19:07:51 From Denyse: The areas mined out in Walkers Wood have suffered greatly from Dust nuisance over the last 18 months and although we have complained and was promised a dust moniter to measure the effect.that has not materialised. We have written to them about helping the Community at large and nothing from them. They speak about what Windalco has done in the past. How ever I am not sure Rusal is off the same mind.!!!

From Dahvia Hylton: What of the employment rate after the mining has 19:10:10 ceased. These jobs are temporary but the environmental fall out are eternal

19:10:48 From Denyse: Will they preserve the endemic Orchids?

19:42:00 From Denyse: What areas is 24 inches of earth put back I would like to know.

19:45:07 mauricelong cloughlong@vahoo.com From RIRGLEANER to COMMUNICATIONS GROUP(Direct Message): quetion1) where has Rusal rehablated any lands in St Ann including Walton, riohoe moanague darylands.

19:46:11 mauricelong\_cloughlong@yahoo.com From to RIRGLEANER COMMUNICATIONS GROUP(Direct Message): Question2) Are you going to main in Gibraltar and GRIGEFIELD and when is this to take place

19:46:19 From Christine O'Sullivan: An environmental consultant should not be pushing for mining. That is not his purview. He is simply to state the environmental impacts of a proposed development







19:48:07 From Emme Christie (JCCYC): This particular consultant is good for that. But we wont get better until we get stronger environmental legislations that speaks to these things.

19:49:25 From Christine O'Sullivan : The EIA process in Jamaica needs to be changed

19:49:39 From Christine O'Sullivan : So that it's impartial



# Appendix XIV: Questions and Comments Raised - WhatsApp Phone Chat

### **QUESTIONS SUBMITTED VIA WHATSAPP**

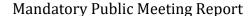
- 1. Will the road be cut through the Gibraltar District?
- 2. What is the compensation health wise, dust will be an ongoing process through-out?
- 3. Land ownership for younger generation would that be part of the assistance programme?
- 4. Re employment; will there be specific requirements?
- 5. Bauxite is a finite resource, so why is the company still pursuing this because they will have to find a business model when all bauxite deposits dry up. Why not switch to renewable energy production, instead of Bauxite mining?
- 6. The panelists have said the soil will still be able to produce at levels prior to mining, but how do they explain communities across the island, which have not recovered from mining?
- 7. Mr Kurt Johnson said bauxite mining is economically viable, the prices for bauxite have gone down so why still pursue it when it's not as viable as it used to be?
- 8. Why is the mining project solely being monitored and managed by Windalco? Shouldn't this be the task of the regulators? Windalco cannot be made to supervise itself.
- 9. Productivity of the land can never be significantly restored for people or the existing ecosystems. Which tree can grow in 24 inches of soil? You have only highlighted agricultural productivity but failed to mention the prospects of restoring ecological productivity.
- 10. Re dust to tanks; Can tanks or water containers be provided with covering?
- 11. What will be the economic impact of this mining compared to the loss of income to approximately 2000 farmers....u hold this land in escrow for the people of Jamaica...u have destroyed the cattle



- 12. How will the compensation package be structured... meaning, will a valuation be done before my land or property is destroyed?
- 13. What's the history of WINDALCO delivering on the promises and resolving issues in favour of residents? Alcan started the cattle tenancy and cattle farming. What is the comparable project that has been initiated by WINDALCO?
- 14. Will communities be involved in designing complaint mechanisms?
- 15. Also, how will they ensure communities know how to submit a complaint?
- 16. My question is for person's who will be relocated that may be sitting on an acre of land, will they be boxed in, in a small parcel, like Faiths Pen?
- 17. How can we hold these person accountable?

### OTHER QUESTIONS SUBMITTED VIA ZOOM

- 18. Do you have any data on the effectiveness of these suggested mitigative measures in other bauxite mining communities?
- 19. What evidence supports that Groundwater levels and flow in SEPL524 would be similar to that determined in the Moneague area to the North East? Groundwater flow in karstic features is channeled and not always uniform?
- 20. What happens if you are on land for more than 12 years but have no title... How will you be treated?
- 21. The EIA has spent a considerable amount of time describing the baseline conditions but not enough details on impact analysis and potential mitigation measures. There is a potential for possible compensation, resettlement, impacts on heritage. Where is the detailed management plan stating how will this actually be done? Only two pages have been provided as a management/monitoring plan. Further details are needed. A detailed management and monitoring plan is important at this stage, not just an outline plan.





22. The EIA by CD&A is almost exactly the same as the one they did for SML 173 in terms of reference to damage, compensation, mitigation etc. Why does it seem that all potential negative impacts are being downplayed and benefits highlighted and mitigation measures presented as easily accomplished?

23. UC Rusal has not lived up to their word in other communities that they have mined, so who says they will do this in this area?

24. From South East St. ANN MP, Lisa Hanna: As I have expressed to UC Rusal we are very concerned about the Mining taking place in these areas. There is already mining in Clapham and other areas in Moneague already. Perhaps the panel should ask how those residents are feeling with the company and their community relations. Bensonton's agriculture is going to be severely affected.

I believe, everything has to be discussed with the head office in Russia

25. What of the employment rate after the mining has ceased? These jobs are temporary, but the environmental fall out is eternal.

26. Will the endemic Orchids be preserved?

27. What are the areas in which the 24 inches of earth will be put back? 28. An environmental consultant should not be pushing for mining. That is not his purview. He is simply to state the environmental impacts of a proposed development.

29. Will there be a grievance mechanism? This should be detailed in the EIA.

30. The top soil also includes micro-organisms, not only minerals. How are these going to be kept alive during the 3 years?

31. How will Windalco seek to prevent mining activities from affecting the stability of the Declared National Monument, Edinburgh Castle? What measures will be taken to protect it and other identified historical sites in the proximity of the proposed mining area?

# **Appendix XV: Photo Inventory**



Figure 2: Participant information being recorded in the Register at the Harmony Vale Baptist Church, St. Ann



Figure 3: Community Members Participating in Mixed 'Virtual' Mandatory Public Meeting at the Harmony Vale Baptist Church, St. Ann





Figure 4: Community Members Participating in Mixed 'Virtual' Mandatory Public Meeting at the Harmony Vale Baptist Church, St. Ann



Figure 5: Tent Established to Accommodate Additional Participants at the Harmony Vale Baptist Church, St. Ann



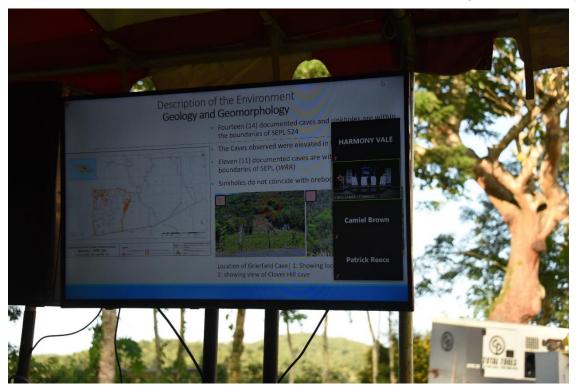


Figure 6: Presentation being viewed by Additional Participants accommodated under tents at the Harmony Vale Baptist Church, St. Ann



Figure 7: Question being asked by participant at the Harmony Vale Baptist Church, St. Ann







Figure 8: Question being asked by participant at the Harmony Vale Baptist Church, St. Ann



Figure 9: Question being asked by participant at the Harmony Vale Baptist Church, St. Ann





Figure 10: Community Member entering Mixed 'Virtual' Mandatory Public Meeting at the Satellite site located at Jeffreyville Methodist Church, St. Ann - Temperature Check and Sanitizing underway



Figure 11: Community Member entering Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Jeffreyville Methodist Church, St. Ann - Participant information being recorded in Register





Figure 12: Participants of the Mixed 'Virtual' Mandatory Public Meeting at Jeffreyville Methodist Church, St. Ann



Figure 13: Remote Simultaneous Presentation of EIA Report underway at Jeffreyville Methodist Church, St. Ann





Figure 14: Remote Simultaneous Presentation of EIA Report underway at Jeffreyville Methodist Church, St. Ann. Participants accommodated under tent outside of the church



Figure 15: Remote Simultaneous Presentation of EIA Report underway at Jeffreyville Methodist Church, St. Ann.





Figure 16: Participants of the Mixed 'Virtual' Mandatory Public Meeting at Jeffreyville Methodist Church, St. Ann viewing Presentation





Figure 17: Community Members participating in Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Jeffreyville Methodist Church, St. Ann by asking questions of the panelists





Figure 18: Community Member entering Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Grierfield Church of God, St. Ann – Temperature Check underway



Figure 19: Community Member entering Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Grierfield Church of God, St. Ann – Sanitizing underway





Figure 20: Participants seated in Grierfield Church of God, St. Ann during Mixed 'Virtual' Mandatory Public Meeting





Figure 21: Community Member participating in Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Grierfield Church of God, St. Ann by asking questions of the panelists





Figure 22: Community Member participating in Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Grierfield Church of God, St. Ann by asking questions of the panelists





Figure 23: Community Member participating in Mixed 'Virtual' Mandatory Public Meeting at the Satellite Site located at Grierfield Church of God, St. Ann by asking questions of the panelists





Figure 24: View of Panelists at Mandatory Public Meeting In Studio. From left: Ms. Fae Ellington, Moderator, Dr. Conrad Douglas, Executive Chairman & Principal Consultant, Conrad Douglas & Associates Limited (CD&A), Dr. Mark Richards, Technical Director, CD&A, Mr. Glendon Johnson, Human Resources Director, UC Rusal Alumina Jamaica Limited (Windalco), Mr. Kurt Johnson, Mining Manager, Windalco and Mr. Miguel Nelson, Manager, Applications Secretariat Branch, the National Environment & Planning Agency (NEPA).