

Just a confirmation hearing yes thank you I would like to call this meeting over there government and governmental organisations members of the project team representatives from the environmental assessment board members of the media colleagues ladies and gentlemen good evening and welcome to this virtual public disclosure meeting for the development project environmental impact assessment I am connected to your chairperson for this evening's proceedings in accordance with the Environmental Protection find lots of piano I think they probably know this was published Adequately addressed in the environmental impact assessment study therefore the main purpose of this meeting this evening this year the key findings of the project yeah with you and for the theatre gonna your feedback in the form is decision making process just before me Christy to address the a few protocols if you haven't done so I would recommend you sign in with your name your full name so that you can be appropriately address we are all professionals here or at least most of us I'm sure so I implore you to be respectful and expressing your views on the cover of the perspective of others and responsible media request the about the extension of the time I just want to make it clear here that the your request was made in considering while the presentations will not be condensed 30 minutes perceived they were condensed however the duration of the meeting has been extended so we got until about 9:00 PM there hi president my centre sticky address we will make it dictation on the way forward so it's it's no 9:00 PM and we're looking at as the conclusion of the meeting but of course we want to ensure that your your concerns and your questions what are adequately interests me train will be recorded for accuracy and I believe request is made posted on the website I'm sorry I team with facilitate that conclusion of the meeting after the presentations are completed if you would like to make a contribution kindly indicate by raising the virtual hand and he will be called muted when your feet when you're through making your contribution but just reminding you to take your virtual handle so that he will be able to see the others who would want to contribute as well presentations questions and recommendations and so on with the monitor so you can start placing those in the shop and they will be they will be monitored and address at the appropriate time the purpose of recording that accountability when you are asking a question or making contributions you said your name and which organization you represent if you're representing what is that first one if you're just a member of the public that's fine before you proceed to make your contributions remember to keep your questions commands and recommendations within the context of the yellowtail environmental impact assessment which will be presented this evening and remember as well to be stinking your submissions to allow at many processes possible to participate in this process alright so we've got I will know handy the virtual platform over to the consultants this year the key findings of the area after which we will open the meeting for questions comments concerns recommendations so you can begin typing your questions in the chat but just know that they will be addressed at the appropriate time thank you very much and I do look forward to a very insightful constructive and productive meeting this evening how can everyone see my screen OK not sure why OK how about now great OK OK so as head as well row giving up a stable on the talking about a little trying to get you know give you acapella on this side of the flashlight sliders at me aren't you public agency And and about 250,000 power that oil will travel from the plot lines London throughout the

- meanwhile I'll take the latter testing is anyone else me Steve I can hear you fine Are you ready for the next one I'll try and speak slower and more clearly yeah this project is the 4th project it's around 200 kilometres offshore by Anna blue developing after 67 S state development wells had the oil production rights is ranked at 250,000 barrels today oil travels through that line from the world that goes up to the floating production storage and offloading vessels the FPS to and importantly with this development like others the associated natural gas that published with the

oil will be used fuel DSO and majority reinjected into the reservoir to maintain will freak out and improve

- I kissed you I keep some perspective on this slide we have the three vessels today's destiny episode which is producing real feel down at the moment UDF so Singapore find what is the right just recently and then the prosperity FPS oh is on the top right there and that's probably in Singapore around about 340 meters long at about 60 meters wide perspective it's size large
- A little bit of information on this on this slide and I'll just cover at some of the high points we've got the yellow tail on the left hand side of the table and then para and leave a place to add live update one on the right hand side table and this is this is going through the major components of the development as I mentioned that each one of these developments here's a single MTSSO production storage and offloading and the distances in around about \$200 if you're in the in the double block the FPS it's more safe or spread more system warning lines connected to the ankle filed their attendance equal how do you look at the process of X have oil speak David commonly around 250,000 yeah around about that under 20,000 that HD vessels has a storage capacity coil volume offloading frequency around every elevation on the wells big well well will be between about 41 and 67 worlds enveloped highlight the I talked through that one this is something production freeze gas injection trees they passed it around something that bugs typically the control lines like that holds the rise in the phone lines it's hard no ship started this development at each development that maybe your ships well quite development had to do development such as it is on shorter board as well with your license yards supply schedule text to development yeah heard it's going to engineering at the moment and designing the FPS so and so one side engineering fabrication parallel there will be installation campaigns offshore like in stone I've been looking up information start I like. Feeling will continue in parallel with application not sure how to be last several buildings as needed and then having fish oil at the end paper sitting too without stop when we look at developing people like this location location needs to be the reservoir to be efficiently with flow lines element concepts sorry put off lighting yes well technology gas processing power generation appointment I'm back Passover 2 right welcome everybody my name is erm an I wanna **** with their time and joining a large number of people here it's fantastic to see so thank you for spending the time so we can work through the the results of our environmental impact assessment for the elephant project so I'm with again with DRM which is a global consultancy with a registered office in Guyana and we were selected print by the EPA to service the independent contractor to prepare the EIA under EPA's direction and will be presenting the key points of our findings today we do have quite a bit of information cover because if you have had a chance to review the it's a substantial document so we're going to move fairly quickly through the presentation today focusing on the issues that are really some of the key takeaways of course any topics in the EIA or open for Q&A and at the back end of the presentation what time for questions and answers so as as miss power constant mentioned please do hold your questions to the end feel free to put him in a chat box and we'll work through those when we get to it at the end that's why Jason I just want to quickly through the process that got us to where we are today so in early April 2021 application kernel authorization for yellowtail development project in that after EPS formal finally I was determined to be required that initiated formal process of preparation yeah sorry to interrupt you yourself could you check your audio or speak into the microphone

Storage oil how how and with that sort of volume up loading frequency quiet for tankers around every quarter six days and I mentioned on the wells as well but we bout 41 and 67 wells to develop things like this so a few other pieces of the project components so I'd like to highlight the surface facility I've talked through through that one subscript piece substrate reduction freeze gas and water injection trees clustered around subsidy stickley control lines like that holds the rise in the flowline stay connected no ships are needed for this development stage development no ships well the plastic elements and to development such as these as well but your face is there how supply schedule steps to this development the urge it's going to engineering at the moment engineering designing the FPS 1000 engineering DFPS open ponents manufacturing and transportation will be parallel there will be installation campaigns offshore like in Seoul and then looking up and commissioning and startup if so. Will continue in parallel with application that actually process is not sure and then talking fish oil developing Florida before like this location location needs to be near reservoir alarms what will development contacts somebody's house look at how to manage abj and produced water technologies gas prices thing pression our generation thank you great thanks Steve welcome everybody my name is Todd hall and erm and I want to thank everyone for their time and joining with great large number of people here it's fantastic to see so thank you for spending the time so we can work through the the results of our environmental impact assessment for the element project so I'm with again with DRM which is a global consultancy with a registered office in Guyana and we were selected approved by the EPA to serve as the independent contractor to prepare the EIA under EPA's direction and will be presenting the key points of our findings today we do have quite a bit of information to cover for those of you that have had a chance to review the it's a substantial document so we're going to move fairly quickly through the presentation today focusing on the issues that are some of the key takeaways but of course any topics in the EIA or open for Q&A and at the back end of the presentation what time for questions and answers so as as miss power company mentioned please do hold your questions to the end feel free to put him in a chat box and will will work through those when we get to it at the end

Any topics in the IR or open for Q&A and at the back end of the presentation will have only a time for questions and answers so as as miss power Thompson mentioned please do hold your questions to the end feel free to put in a chat box will work through those when we get to it at the end I just want to quickly through the process that close to where we are today so in early April 2021 EP go filed an application or incremental authorization for yellowtail development project and that after EPS formal finding scheduling to quired that initiated the process of preparation sorry to interrupt you you're so now with muffled could you check your audio or speak a bit more into the microphone sure thing thank you better OK no problem so the EPA determined an EIA was required shortly after that application was submitted in a public notice initiated a scoping. And some of you may have joined some of the scoping meetings back in may and June for those that did welcome back and hopefully you'll hear some topics that you might have raised discussed today through a process of reviewing the scoping comments or received in may and June and that information informed the development of course knows of terms and scope for the lay this is essentially the rulebook under which the eye is conducted following the issuance of the turn scope by the EPA EIA process preceded stakeholder engagement continued for an additional several months and the I was submitted to the EPA in mid October of this year initiating a public notice. That we're about halfway through and so we have about another month and that in the 60 day

comment period which concludes in mid December and this is one of the key steps in the process for the consultant to present the findings and receive any questions or further input from stakeholders on the eye itself next slide from this Jason so for those that aren't familiar quickly what's the purpose of the EIA so that the purpose of the I really got a few points first personally is to describe the project too explain clearly what's being proposed not just the key aspects of the engineering for the FPS show itself but all the supporting activities that would be involved in making project happen then to describe the existing conditions within what we call the project's area of influence and that so that we can understand before we start to do an impact assessment what the conditions are for the various resources in receptors that could potentially be affected by the project that allows us to move through a process of assessing environmental associate conomique impacts on those resources slide back please Jason and and in doing so high cortizone rate those those impacts so that we can propose strategies to manage the more significant adverse impacts or to enhance some of the benefits and at the end of the day the intent of the eye is to provide the factual and technical basis for the EPA to make an informed decision the application is permitted project so that I handed to Anna Sunday she's going to go over some of the public comments that we received in the scope OK thanks Todd the scoping. Was a really really key step in the early stages of the EIA and we have a number of consultations that I expect a number of people in the room here today were involved in as part of that scoping phase so in developing the terms in scope we considered all the comments that were received those are all documented in chapter four of the EIA and there are summarized here on this slide and the next so we've summarized them here based on sort of the key topics and themes that came through and then we heard things like climate change and flaring as well as impacts on water quality an fisherfolk Ann and other topics so it's not an exhaustive list as shown on the slide here we can go to the next slide just to get a flavor of the the rest of the comments but there is much more detail provided in the EIA and I'll just emphasize here that we absolutely looked at every comment that we received either you know during the scoping meetings or otherwise and it has been a useful thing for us to understand as we have developed the EIA understood what what people are really concerned about and you know we've tried our best to address these topics to address each of these themes in the presentation that will be going through today on to the next slide this is really the road map for the EIA so we looked at 25 resources in all there shown in these boxes and these kind of three pillars so we have three categories of resources that we looked at in the assessment and we have our physical resources which is our water quality air quality climate change noise or sound impacts and then geology and settlements in the middle we have our biological resources with these are fish and animals everything from the benzos on the bottom of the sea to larger marine mammals as well as coastal wildlife this also includes looking at habitats insert ecosystems and how those all fit together and then on the on the right hand side we have our social economic resources so here we're looking not only at jobs and revenues and livelihoods but also how are people using the environment how might some of those environmental impacts have make their way to impact on people and communities as well so we looked at traffic and transportation both on land and in the word water we looked here at juice and Atlanta livelihoods specifically at the livelihoods fishing so will talk through each of these 25 resources on the physical biological and social economic side in the remainder of this presentation before we get into the findings of the impact assessments I'm going to hand over to Jason he's going to talk us through some of the sort of baseline study highlights from this project right thanks Anna so my name is Jason Willie I'm the project manager for for erm for the for the yellow tail EIA I also been the project manager for your ends support for the previous three development projects eyes face align page two in piora so I'm just going to very briefly talk about a few examples of the of the about 15 different

environmental social studies that we've been there we've conducted in Guyana to support all of the eyezen including yellowtail since about 2014 and the data from these studies is gonna said we used to inform the impact assessments for the physical biological socioeconomic resources that she meant it resource estimates that Anna mentioned in the last slide so the first study I'm going to talk about and again these are just examples of the types of studies we we did it's not an exhaustive list but the first one to talk about is the air quality study air quality study included collection of onshore and offshore air quality data and extended over multiple years and the the onshore component included question of air quality data over several different regions along the coast and then the offshore component included several survey trips to the block to staber clock two to collect all shore or quality data now it was left in the field by guyanese experts and the results of the air quality study showed that pollutant concentrations are generally without an below international human health guidelines with with the exception of particulate matter in some locations along the coast and and this data was used not only to describe the baseline conditions in the air quality section of the IA but also to also has inputs to the air quality modeling analysis that we did for the impact assessment for air quality the next one I'm going to next study I'm going to talk about is desperate ori fish study this was also wet in the field by guyanese experts and it is it is an ongoing study it's it is still going on right now this study also extended over multiple years if we collected information along the entire coast to all the six coastal regions out from front guyanese fishermen with multiple survey trips and the purpose of this study was to characterize fishing communities an map local fisheries including where the Fisher folk go when there a city to catch fish and unlike the biological fish study which was which was another fish oriented study that we conducted the disciplinary fish study assessed that the human and economic aspects of fisheries including what people are catching weather fishing what and what the economic considerations are that they have to deal with in the running of their day-to-day business such as what they're getting paid for fish any challenges that they might have to their business for example access to east transportation how much fuel might be cost costing them those sorts of things the third study I wanna talk about is the coastal sensitivity mapping study this used a combination of remote sensing an field work to verify what we were seeing in our remote sensing data like the particular fish study it encompassed all six coastal regions and it created the first set of maps of their kind for Guyana and it was used to inform not only certain aspects of the impact assessment but also the oil spill response plan there were there were several components of the dust sensitivity mapping the first one was was an assessment of the shoreline types along I honest coast using the national EU S national oceanographic and atmospheric administration's environmental sensitivity index which scores the types of shoreline habitats on a scale of 1 to 10 based on their sensitivity to the effects of oiling and this scale considers ecological value of specific types of shoreline weather wouldn't hear tamayo sure or not and how easy once you add it could be clean if wielded restore on and then we also look particularly at mangroves we know mangroves are the most sensitive shoreline taipan since we know that they are so important for Guyana we evaluated individual stands in mangroves to determine their sensitivity due to impacts and then the third major component of the of the go sensitivity mapping that I want to talk about is the system services study so we when we ask wiggles what about their specific shorelines are sensitive weather could be accessed for fishing or concerns about flooding cultural significance that type thing and we added those sensitivities to the maps and that's what you see has the the different coloured circles on the map in the upper right so with that I'm going to pass it back to Todd and he's going to go through the summary of EIA results so so jasons covered just a few of those more than dozen studies most of which are multiyear studies that contributed to our understanding of the existing conditions for the

resources and I'm going to start us off now on the discussion around the assessment of potential impacts and risks to the open services so for each of the 25 resources that Anna presented in the earlier slide physical biological and socioeconomic the E I looked at three things first we looked at the potential impacts on those resources from activities that are planned as part of the project the second thing we looked at was the risks to those resources from events that are not planned as part of the project that could potentially occur we refer to those in the EIA or something events and the third we look at the combination of the potential impacts from the yellowtail project on those resources combined with the potential impacts from other projects or other activities science yellowtail and we refer to those as cumulative impacts so all three of those were assessed for each of those 25 reserves so you can imagine that depending on the resource impact the way in which the impact is assessed will differ in a way that's appropriate for the resource but to allow us to have a consistent way of identifying priority impacts and risks we used a consistent scheme that allowed us to identify those impacts that were of a lower significance compared to those that were the higher significance and the reason we did that was to focus effort on identifying mitigation measures and management measures 1 addressing those impacts that are of a higher security view the impacts we identified were positive in nature or in other words they were benefits and you can see a couple of those on the slide here many of the impacts and risks we assessed were rated at a lower significance level and work through that were rated at higher sentence level and the ones that are rated at a higher significance level are generally what we're going to talk about on the presentation today just in the interest of time now that said EIA goes into the same level of detail in the same robust justification and discussion for every impact and risk that we looked at whether it was concluded to be of lower or higher significance so there is substantial information in the eye justifies the conclusions explains the conclusions but again in the interest of time we're going to focus on those that have a higher significance for the rest of this presentation

So you got to see one of these types of slides for each of physical high logical associ economic and I want to give you a little bit of walkthrough as to how to read it so on the left hand side in the column on the left you'll see the resources in this case these are the five physical resources that were that were shown on the table that Anna presented earlier across the top in the middle three columns should see that the planned activities in project 3 paces the far right you'll see the various unplanned events that we assessed as part of EIA the boxes in the middle represent the specific impacts or risks that we assessed and the colours mean something in there consistent with what I mentioned on the last slide how large the boxes if there are shaded light Gray it means that EIA concluded that particular impact was assessed to be a lower significance if they are yellow or orange the I concluded they were assessed via higher significance and again that's generally what we're going to speak about in the presentation today one exception to what I just said is air quality and if you will call from the last slide is on the top row there it stated that official impacts to air quality or concluded to be able to lower significance but we did quite a bit of work to reach that conclusion I wanted to share that with the participants today just to just to to make sure that's clear Jason indicated we have almost three years worth of ambient air quality data collected from a number of locations along with iron post and that contributed to our understanding of existing pollutant concentrations in the air shed which allow us to put into context predictions of potential impacts to air quality from the project the next thing we did was we built a full what we call emissions inventory for the project what we do here is we take the full engineering design of the project as well as all of the supporting activities that support vessels the helicopters all of the all of the things it takes to make that project come together from construction installation all the way through the end so more light in 20 years we calculate based on standard engineering design principles emissions that will

come off the project on a year by year basis we didn't use a computer model to model the transport of six criteria pollutants so these are the six pollutants that are generally looked at by regulatory jurisdictions modeling the transport of those pollutants as they move from the block 200 kilometers from shore to Dinah Shore line and onto shore where potential receptor city we didn't compare the maximum predicted onshore concentrations anywhere online to almost 20 different guidelines from the World Health Organization in U S EPA and those guidelines are developed to be protective of human health And when we did that what it showed us is that the maximum predicted onshore concentration in any of those 18 guidelines there was one constituent nitrogen dioxide that got as high as about 6.3% of our respective guidelines so in other words about 15 times lower than the maximum health based standard all the other pollutants for less than 1% of their respective governments so in other words by more than 100 times lower than that then the guideline and there's a couple of reasons for that first is that again it's 200 kilometers from shore there's quite a bit of distance for those emissions to disperse as they move their way to shore but there's also almost 40 different controls that are in place to reduce emissions and some of those key controls is dedicated earlier who the injection of associated gas instead of continuously flaring it and other techniques to minimize it's like this so one of the other one of the other physical resources was climate and climate change this is one of the ones that was rated at a higher significance now projects of this nature will emit greenhouse gases and so the EIA was focused on assessing the measures of the project will have put in place to reduce those emissions to the extent practicable another same 37 measures that will reduce pollutant emissions as per the previous slide will also serve to reduce greenhouse gas emissions and in total when you look at the way the project is designed and the way it will be operated the reduction is about 80 to 84% for greenhouse gas emissions and that's compared to the missions that would come out with no embedded controls and mitigation measures an with routine flaring associated cast instead of rejecting it the biggest production comes from that re injection of gas rather than pairing it but another key measure that's put in place is the project yellowtail project will include what we call sparing which is the installation from the very beginning of spare compressors on the FPS oh not stored on shore waiting to be moved out as needed not in factory somewhere waiting to be installed install from the beginning before startup even occurs so that when there's a maintenance situation or reason why one of the professors needs to be taken down temporarily the flow can be switched over to the standby backup compressor and that significantly reduces both the duration and the frequency of non routine flaring in instances such as maintenance

Then the last physical resource that had that one of those clear boxes to one of those higher significance impacts is related to marine waterfall in the specific impact relates to drilling phase in which the discharge of cuttings during Israeli process will produce a temporary increase in turbidity levels around well and this has the potential to impact marine life during the period when these Trinity levels or these these increase total suspended solids levels are present Jason is going to cover those in greater detail when he talks about potential impacts to specific biological resources but in short there are a number of management measures that are put in place by the project such as the use of international standards for treatments of effluent discharges it discharges cuttings that will serve to reduce these index my God I will pass it back to Jason it will take us through the same set of discussions for biological resource OK thanks start so for biological resources like my card said I'm going to follow the same sort of format that he did for physical resources although for biological resources we have three of these summary tabular type slides because we just have more biological receptors than than physical receptors so I like how I did I'm only going to focus on the receptors or resources that had more significant or you know above

negligible impacts rated and for the first for the first those is seabirds so for seabirds were primarily going to concentrate on impacts during the operational phase for other resources that you see that you see here on this slide like coastal habitats protected areas we are the the most significant impacts we would be predicted would only occur for unplanned events such as oil spills or vessel so moving on to the next set of biological receptors the focus for rain Malzahn river in mammals will be on sound during drilling and production operations for marine mammals and then we're also focused on exposure to vessel traffic in the harbor for for marine for river emails rather and then looking at the third and final set of biological resources that were going to cover for a fish I'm going to talk primarily about impacts during the early on in the project life cycle during drilling installation and those impacts range from minor to moderate depending on the species that were that we're going to be talking about free car wash will balance in ecosystems will discuss impacts from invasive species during the entire project life cycle and then for benthic organisms were to focus on the ratings with a positive rating resulting from creation of artificial habitat during production and decommissioning phase is now for rain fish I want to battery fish for a minute you saw there what you can see that there is a orange box that says that has 2 S is in it you saw that receiver urgency it again here now we know that some groups of animals include rare or threatened species and by virtue of their threatened status they are by definition more sensitive to any type of impact that other species for the purposes of this CIA we've treated sea turtles and marine mammals as if they were all rare or threatened because many of them are an others are protected by treaties and so forth but for seabirds and marine fish we made a distinction between the sensitivities of the more common species and the sensitivities of those that are more rare which is why there is an orange coloured insert here for what we call special status species so the special status marine fish there's a rare threatened received a higher sensitivity rating and therefore received a higher impact rating than the more common fish and it was the same for for seabirds so moving into the resource specific discussions most impacts on marine fish would be negligible but minor impacts could occur due to certain certain project activities the most sensitive or the most significant impacts would be related to the effects of decrease word quality on the fish and these would be most sense significant during the early project early in the project life cycle when water quality can be affected by but thrilling activities and discharges from muscles the most significant impacts water quality would be in immediate mixing zone around the FBS so close to where the discharges are occurring in these these effects would dissipate rapidly as particular quality bold model that that Todd mentioned and the model specifically shows that work that work great work quality would meet all clickable letter international standards within about 100 meters from the FPS at all so there's a potential for a significant impact within that mixing zone around the FBS oh but outside of that area were predicting that were quality would essentially meet in all applicable standards there would be changes in fish distribution and habitat due to the deposition of cuttings all the sea floor during during grilling but we've rated these impacts is negligible because of a small area of effect compared to the size of the C4 ecosystem in the block and also because there are strong deep currents in the block that would tend to erode those piles from the from the moment that they're created now deepwater species would be expected to move away from the initial Trinity points created by the drilling activities but we here expecting that they would remain in the general area because there also being increase in food availability for those fish as vertebrates are disturbed by the drilling activities and enter the war column there could be some uptake of fish eggs and marble fish and other marine life forms in the ballast and who were intakes but the vessels will be equipped with screens to limit that uptake and any mortality associated with the update their away life stages would be insignificant compared to normal natural mortality rates near the surface we we are

predicting that lights from the vessels and sound from the vessels could not alter fish distribution again in the immediate vicinity of vessels but we're not expecting this effect would be substantial enough to result in changes at the population level where the system level now all of these impacts as I as I indicated previously are rated higher for special status species so some of these impacts could reach the moderate level for certain special status species to be there in the increase sensitivity for most fish species they would be in the moderate are negligible range and then the final final impact I were affected when I talk about is positive effect due to the off shore due to the structures that would be sitting on the sea floor they would create artificial habitat for marine fish and we're expecting that once the once the initial impacts from the joints drilling installation phase are over with that fish would be attracted to those structures as positive habitat features in terms of the management measures to to manage the negative impacts that the most significant management measure is adherence to international standards as long as the water quality meets international standards outside of the mixing zone we predict it will then that will tend to manage a lot of the of the most significant impacts on fish OK so moving onto seabirds again we have impacts we predicted the impacts of seabirds would range from negligible to minor again with one positive affect negative impacts on seabirds that were predicting primarily related to interaction with the FPS oh another vessels so cars could be injured or killed due to interactions or collisions with the FDS oh or other vessels they could also be disturbed or have their migration patterns altered by lights or sound coming from the FPS over the other vessels operating offshore we did during our offshore offshore seabird surveys we did document that certain migratory birds will use offshore vessels as resting places during their migrations we actually solvers doing this and so we are we are predicting that there that there is going to be some level of positive effect from migratory birds using these vessels stick with the FPS obese Terry over for a couple of decades station because it known as a resting place and we also know that that the attraction from white can also attract prey such as marine fishes to the extent that it would concentrate pray that would also be a positive effect management measures that were that were recommending our where reasonably practicable direct the lighting on the FBS oh another project vessels only to operational areas rather than just blanketing the sea surface or or wedding there's there's lights predicted projecting to this guy that will minimize the effect of the lighting and then also adhering to the maritime safety regulations and standards for writing on vessels then of course also the marine quality that the main water quality standards will also help to address any impacts from marine or sorry seabirds contacting the the ocean OK the next one is marine mouse so most of the most of the impacts on marine mammals relate to impact from sound so there is the potential for injury to marine mammals from sound we know that marine mammals you sound to navigate locate crag communicate so they are very sensitive artificial noise in the ocean but their degree of sensitivity varies by species and type of sound we conducted sound modeling to compare sounds from project to it known injury thresholds for marine mammals from the literature and for all scenarios the model conducted that the potential for injury is very well and that's due to a combination of volume of the sounds that be produced time to mammals be exposed to sound and the depth at which they would be produced has as previously predicted or discuss for fish permitted discharges for the project could have a negligible impact on mammals but again because of the small size of the mixing zone were predicting that to be negligible and and also all short lighting could serve as I could have a positive effect for males again primarily because it would concentrate food resources similar to the effect on seabirds the management measures that were recommending are to follow the JNCC guidelines for management of artificial noise in the marine ecosystem Jan CCS international body of scientists that have come up with guidance specifically for

managing sound in the ocean we recommend that those be followed also employing train marine mammal observers during impulsive noise activities so these are activities that have a rapid onset and decay rather than rather than yellow wall duration because those can news have been tend to be the most disturbing to marine mammals also if seismic operations are done during drilling we we proposed that they may be avoided or rescheduled if if marine mammals are cited within a zone around the around the wellhead and then also using stall soft start procedures which is kind of a blanket term for just starting up and always up noise producing equipment gradually so it gives the marine mammals a chance to vacate the area before they're disturbed or injured the next resource I'm gonna talk about or riverain mammals and really the only the only impact the Rose to level of being you know minor or or above would be behavioral his behavioral changes or displacement as a result of vessel traffic in here primarily were talking about the manatees in the demerara river the shore bases that the project would use would all be in the demerara harbour or in Georgetown harbor sewer river and keys do occur there with some frequency and the primary recommendation we're making here is to just make make sure that the marine vessels calling on the on the shore bases are regularly maintained and are operating in accordance with the manufacturer specifications because well maintained well maintained equipment generally operates at a well ravallion and then the last last biological resource that I'm going to talk about is ecological balance and ecosystems this is a little bit unlike some of the other some of the other resources all the other resources are our taxonomic categories so there are types of animals right this is this is more of a higher level resource that takes into account ecosystem level effects and there are three effects that we evaluated in the eye at the system level and that changes in the marine nutrient cycle primarily from discharges impacts gene flow which could occur if the project affected the way animals move migrate through the marine ecosystem and then introduction of invasive species through ballast water the introduction of invasive species got the highest rating that's that's a minor we know that that has been a problem in other parts of the world and recommending two met two management measure specifically to address the invasive species issue the first one is to comply with the international standards and guidelines from for discharges to the block that requires those discharges to be treated so that Invasive species aren't introduced to the block and then also following applicable international guidelines for ballast water management and that primary primarily means exchanging ballast water while at sea before tankers come to the FDS oh to to receive the oil that way they're not bringing in animals or plants from another coastal region in another part of the globe there essentially exchanging seawater for seawater OK I'm with that I'm going to pass it over to McAuley Anna and she'll do the same as I just did for sushi economic resources so in our in-person meetings that we've had over the last couple of weeks at this point I would be joined by by some of my guyanese colleagues from our erm office in Georgetown and from one of our subcontractors semco to talk with me through the socioeconomic assessment and some of the engagement that underpinned it unfortunately they couldn't join us today because they're actually out in the field and continuing to engage with with some of the local communities so I'll do my best to summarize on their behalf here so in preparing for the EIA an for the the socioeconomic components of the EIA specifically we made an effort over the last months to engage with communities and stakeholders to under stand the current baseline including you know changes that have occurred especially over the last year or two with things like the COVID pandemic the floods earlier this year and the increasing oil and gas activity in the country so through that we were we engage with communities and to showers along all the coastal regions as well as with government agencies and Ain other stakeholders and we took what we heard through that engagement when we heard about how things have been changing on the ground in some of these communities and that has

really informed the EIA so it's been incorporated into chapter 8 specifically and it's a it's informed or assessment that we will just that will describe today so this is the first of two slides summarizing the socioeconomic resources so we looked at 10 social economic resources overall and some of these had project benefits and they are shown in green here so that's Increased employment and business activity and related impacts on income and revenue and then we also looked at potential negative impacts and that includes impacts on fishing livelihoods potential competition for skilled labour community health and well being and if Jason goes to the next slide here we also have we also looked at potential impacts on an infrastructure and services including you know could there be overburdening of lodging and housing things like traffic congestion and also waste management facilities or one of the one of the ones will focus on today here as well next slide so we'll go through go through the highlights of the socioeconomic assessments and the first one will look at indeed still here is called socioeconomic conditions and the first thing you might notice here is that there's a lot more green bullets than we've seen on some of the other slides and these are marking some of the topics where he sees some of the project benefits coming through so some of the benefits on social economic conditions more generally include contributions to GDP and tax revenues we've hiring and procurement leading to increased employment and business activity training and capacity building and that applies to both workers and aspire businesses and then indirect and induced economic activity so as businesses grow as as people are employed and they start to spend their money in the community that that has a trickle down impact it's not all positive and we did look at negative impacts as I mentioned that it's actually when we look at some of the benefits that we need to recognize that there can be some negative downsides to them as well so most notably when we think of hiring that's that's generally a good thing but as EPG elanit suppliers need to hire more there could be more competition for skilled workers and this could make it harder for local businesses to find and retain skilled staff especially when there's you know specialized positions that overlap with the projects needs also is the project supports rising incomes and household spending it could potentially lead to some increased prices for goods and services and both of these impacts the competition for labour and there the increased increased prices for some goods and services are really expected to be focused in and around the Georgetown area because that's where most of the hiring and business contract ING activities will be based in terms of management measures to to either you know enhancer optimize the benefits or to minimize the negative impacts so EPG L has a clear commitment to employing dionys citizens and to procuring goods and services from local businesses and they report on this on a quarterly basis so four times a year they have a report on their biennis employment and procurements numbers and then they're also partnering with local agencies to support local workforce development and business development programs I know there were a number of meetings in the last week or so I'm sort of socializing that and sharing some information about about some of those programs and this is really you know really going to help with the labour competition by building those skills without the throughout the works workforce so that there's less competition for some of those particular skillsets I'm on to the next slide employment in livelihoods annemarie neuston transportation so again we have some benefits related to employment and this includes you know not only looking at The Who the project is hiring directly but also what we call indirect employment which is hiring by the businesses in the suppliers that are involved in the project and then what we call induced employment which is that people are spending more money in their communities that's helping other local businesses grow and generating more jobs that's employment I won't spend anymore time on that because we've covered it a bit in the previous slide but when we look at livelihoods in marine use here we're looking at activities in the marine area and how that could disrupt fishing activities and fishing

livelihoods so we know that the fishing livelihoods are really important up and down the coast so we spent a good amount of time to consider these impacts and we looked at two types of fishing activities so we looked at commercial fishing so the project development area is 200 kilometres from the coast so it's quite a ways offshore there's only a few larger commercial vessels that can go out this far Assistance in artisanal fishing so for even for the vessels that don't go out that far you know we looked at how they might be impacted so people who are using areas closer to the coast and they may they may really interact with the project mostly around the Georgetown harbor area and the demerara river because it'll be project project related vessels going in and out of the harbor and the river so that could cause some interactions with some of the smaller vessels the subsistence special vessels and another fishing vessels so to manage these impacts for both the commercial fishing and the subsistence fisherfolk will be notices to Mariners that are issued through marathons the department of fisheries and that will communicate the movements of the major project vessels both to the fishing stakeholders and to other members of the public and that will be communicated or that will be supplemented by other communications by EPG else on going community relations activities so there's ongoing communications about about impacts activities of the project and how that might affect fishermen and also to to hear from them about their concerns and changes as well next slide I'm sure the next component will look at his community health and well being a few different impacts under this topic so we looked at things like disease transmission and public safety but these are really well managed under the the health and safety protocols that the PGL has in place there were two issues that stood out as having a higher level of significance and those are the ones will focus on here so one of those relates to public health and emergency services so basically if the project in its workforce is going to use local health and emergency services that could create increase demand or pressure on those and maybe overburden them or make them less available to to local residents this is certainly something we want to avoid and so some of the measures that will be in place to help with this is that he PGL will have medical personnel on board the FPS oh another major other major vessels and those medical staff are going to be the first point of contact for any medical issues that arise in relation to the project and they also have a dedicated vents for onshore transport so there won't be competition for ambulance service either so really the goal here is to make the project more self sufficient and reduce reduce reliance on on some of the local health and emergency services the other impact that we looked at relates to public anxiety and we recognize that this can be a very real issue for some people and can have a very real impact on on a sense of well being so the oil and gas industry is relatively new in Guyana and is understandable that there are some questions and concerns about the potential impacts of the project on things like the marine area on livelihoods on the the the health of fish and other animals and on on peoples health and health and livelihoods as well so we've heard this a lot through our engagement we've heard it in region one as well as in other regions and I'm not gonna get too much into I'm into questions about oil spill modeling todd's going to share some more information on that a little bit later but just to note here that from a well being perspective we did recognize that the the concern or the worry about an oil spill is something that we thought was important to consider in terms of people's overall well being in terms of mitigation again you know we're really focusing here on transparency sharing information having that continued engagement both around the project activities more general and around oil spill response programs and the measures that will be in place for emergency preparedness and response including also the the fishing communities along the coast and then region 1 next slide his social infrastructure and services so this component was really looking at potential impacts on things like housing on travelers lodging like hotels and on traffic congestion so all of these all of these services are really focused in and around the

Georgetown area because that's where we're expecting most of the projects onshore activities to be so lodging and housing impacts could come from at a very basic level increased demand as the project activities ramp up and the workforce growth whereas the traffic impacts again come from simply having more vehicles on the road in the Georgetown moving workers and materials around and we know that there's already a high level of congestion in the Georgetown area so they'll be an addition to that with those additional vehicles some of the management measures that will be in place here again you know communication and engagement being a big piece will be sharing information about EPG else accommodation standards in an effort to spread the demand for hotels out over a greater number of hotels so it's not getting pinched at a few suppliers and then we also you know we also want to be clear about communicating employment and business opportunities accurately and managing expectations around that to avoid having an influx potentially of job seekers coming to the Georgetown area and looking for housing so being clear managing those expectations are a big part of our management of these impacts and then on the final the final socioeconomic component that will look at today the waste management component looks at impacts on both hazardous and non hazardous waste management and will talk here mostly about the non hazardous waste that planned to be disposed in the heggs Bosch landfill so when we looked at this impact we thought about if the amount of waste generated by the project were so great that it were to affect other people or other businesses ability to use the landfill that that would be a negative impact that we want to avoid so there is a waste management plan in place for EPG else activities going beyond the yellowtail project it covers all of their activities in Guyana and that's really designed to minimize waste through recycling and reuse another means for waste management and then separately EPG else monitoring the landfill capacity an the expansion plans for land for the landfill more broadly so right now we can say that the peak waste volumes generated generated by the yellowtail project would be about 3% or less of the total demand by all current landfill users so in the short term the capacity of the landfill looks good an EPG L will stay in contact with the ministry of local government and other relevant agencies about future plans for the landfill so I hope that gave a good overview of the topics that we looked at getting socioeconomic assessments there's much more detail provided in chapter eight of the EIA and I'll pass back to Todd now who will talk us through some of the unplanned events assessment including the oil spill modeling and response thanks Anna so as I mentioned in my earlier slide in addition to assessing potential impacts from the activities that are planned to occur the EIA also assessed risks from unplanned events again so these are these are events that are not planned to occur but could potentially happen during the project lifecycle there were seven or eight different unplanned events that we looked at which had potential impacts or risks to various resources depending on that the risks that were assessed at a higher significance included potential vessel strikes of marine mammals and marine turtles and potential onshore vehicle accidents or increase in a risk of vehicle accidents number of management measures are in place to reduce those particular risks with respect to the biological risk that includes training of vessel operators for recognize and avoid marine animals and with respect to increased risk for traffic accidents there is a road safety management procedure that's actually already in place first time in the earlier development projects to reduce that potential for additional traffic accident risk related to additional project vehicles on the road the other unplanned event assessed at a higher significance is a marine oil spill and I'm going to I've actually got several slides to go through to get into more detail on that so I'll head there next Jason so the I actually looked at a range of different oil spill scenarios all the way from smaller volume spills to larger bone volume spills spills of fuel row vessels to releases of crude oil in the block near shore offshore so there was a there was a wide range both in terms of size and location the spill that I'm going

to focus on today is what's referred to as a loss of well controlled scenario and this is a fairly rare event but it's associated typically with the during the drilling phase when the drillship loses control in the well and crude oil is released to the ocean so again highly unlikely but the purpose of the EIA is to assess the potential consequences should such an event occur now if such an event were to occur with respect to the Guyana shoreline there are a number of factors that would reduce the severity consistent with the discussion I had on air emissions the wells themselves or about 200 plus from shore there's plumbing so quite a distance to move before shoreline impact would occur the winds and the currents as I'll get in to on some of the next few slides would tend to carry the spill to the western northwest as opposed to directly at the align oils that have maintained to evaporated within nature with more quickly as as opposed to a heavier or nevertheless to assess the potential consequences of a marine oil spill extensive modeling was conducted to predict the movement of a spill under under various situations and that included a number of scenarios in the next few slides will get into the results of that modeling in greater detail alright so I'll try and speed it up here this is for our comps and that this is a pretty meaty slide so move as quickly as I can through here so there were two potential release cases that we looked at for a loss of well control well with reflect that unlikely event that the drillship would lose control over well but the first represents a more credible scenario where some sort of obstruction would be present in the well piece of hyper or piece of equipment that would restrict the flow of the oil from well and that's what's represented on this slide now because the currents and winds change across the year modeling was performed actually over 100 different simulations for this case and that was in an effort to capture a range of different potential outcomes based on all of that more than 100 modeling events the first picture in the upper left ascentia Lee shows the chance that it also would reach any particular location and so I'll quickly explain how to read that if you if you could read the bottom right box the red box in the legend in the upper left which you see as it says 90 to 100 what that means is that out of those 100 events 90 to 100 of of those oil would be present somewhere in that red sort of almond shape Chance this is a chance that that would be in any particular location depending on the day you know the release occurred in the winds and currents that were prevailing at the time now what's important to understand is these these this map assumes that nothing is done to control this pills which of course wouldn't be the case but the purpose of the eye is to assess what we call an unmitigated scenario where the oil might go and how quickly it might go somewhere now out of all of those 100 events the event that the model predicted had the shortest time for this builder reaches shoreline was selected and that's what's shown in the picture in the in the upper middle so that's a single simulation on a particular day that blue colour indicates that the spill would have moved through that location at some point during the model simulation again this assumes that nothing would be done to control this bill which which is not a realistic scenario but one that the EIA focuses on the next figure shows to the right in the upper right corner shows modeling of what would happen if response measures were implemented which of course would be the case and as the picture shows a response measure implementation would reduce the amount of ocean of the spill across now we did the same modeling for June to November and December to may because the wind and current patterns tend to differ between those two periods more westerly in December to may more northwesterly in June November and as you can see the in the December to may when our government westerly direction of flow still would would result in a greater chance that Diana shoreline would be impacted again with response measures that the amount of ocean area is reduced as it was with the junior November the next slide now I talked about that more credible case now this is referred to as the maximum worst case and this is the same loss of well controlled scenarios that same one like this situation but the additional unlikely situation where no obstruction would be

present in the well and that would allow oil to flow freely from the well what you'll see is that you know that the chance maps to maps on the left look pretty similar to the most credible case scenario there's not very much different some of the lines some of the green lines sort of in the middle change a bit but the amount of Dinah Shore line it has a chance of being impacted in December to May is about the same the chance maps essentially are almost unchanged now in the December to may timeframe what you'll see is that when the computer model was used to find the the event that had the quickest arrival at a shoreline when it predicted that in the December to may the plume would come ashore in region 1 again this is an unmitigated scenario with implementation of response measures as you'll see you know that the amount of ocean area that is crossed by the oil is reduced but there's still a predicted shoreline impact in region more now the one thing that we don't show in these response in these maps because we don't know ask the model to do that 'cause they don't show shoreline protection and so that's that is an additional measure that's not depicted in these graphs in these maps but that's the reason for the coastal sensitivity mapping Jason talked about earlier to identify critical areas that need to be protected and that would be implemented so so you know the entire shoreline impact were that unlikely spilled to happen on this particular day wouldn't be as reflected necessarily on on this slide so with that I want to get into it once next slide please Jason so the EIA has got a an oil spill response plan provided with it describes all the processes and procedures that would be implemented there are a number of tools that could be used to respond to his fill on the OS RP they won't spell response plan goes into that and bring the tail you know some of the comments we received during scoping related to compensation for losses that could occur resulting spill the EIA does have a claims and live with mediation process discussion in it which addresses that compensation additionally DL and its partners of the questions about insurance do maintain insurance coverage which includes coverage for liability and regaining control of the well there's there's a lot more detail in the world store response plan but in the interest of time I'm going to stop here and jump to a couple final topics before we get to Q&A alright so I mentioned that third component cumulative impact assessment and this was an additional level of analysis where we looked at the impact from the planned and unplanned events associated with the project overlaid with potential impacts from other projects we looked at other oil and gas developments the gas to energy project the harbor bridge replacement open farm shore based projects and of all the resources that we assessed there were three rectified as having a higher priority for impact management so this is above and beyond the impact management that's already being proposed for the yellowtail project and you'll see those here there were marine mammals climate change and waste management with respect to marine mammals the priority rating derives from the additional risk of vessel strikes as a result of more vessels on the water in respect of climate change similarly more projects means more greenhouse gas emissions and in the case with waste more projects means more waste and so there were specific management measures that were identified to address those combined impacts such as sharing of support vessels between projects to reduce vessel trips and continuing to assess measures to reduce GHG emissions during operations and then finally last slide so this brings us to the summary and the recommendations based on the results of the EIA so so based on those results that consultant team his recommending multiple levels of protection and those include incorporation of all of the proposed embedded controls that are described in the EIA and there's literally thousands and thousands of those adoption of the additional mitigation measures that are recommended to further address impacts beyond what those embedded controls already provide implementation of a suite of management plans that are provided in volume three of the EIA including environmental social economic management plan will still response plan a waste management plan among others and maintaining that oh SRP including

all the associated activities such as oil spill response drills and simulations and exercises and the overall result of implementing all of those recommendations that the conclusion is of the project is expected to pose manageable environmental and socio economic impacts while offering the potential for significant socio now socially economic benefits to Guyana so basically take us to the next screen that's that'll take us into Q&A thank you thank you very much to the present now add over here when they segment for those who joined a bit later wanna welcome you to the virtual public disclosure meeting for the youngster development project he a just to give you a few reminders as we move into this segment I reminded you to be respectful in the expression of your views answer respect the perspective of others also to state your name and organization you're representing before you proceed to make your contribution for their few persons who haven't who haven't logged in with the name we want to be able to address you appropriately so kindly change the setting and ensure that you adjust that so you can log in with you we are full name remember to be sync with your submissions so that we can allow us many persons as possible to participate in this segment with that I will move to the chat first there are number of questions chat so I navigate between the chat and the raise hands some of the persons who have their hands raised you also have questions in the chat the persons monitoring the platform indicate to me the order with the hands were risk and we will proceed but let me go to the chat I take both three questions from the chat and then take the persons who want to to verbally pause their questions alright so the first set up questions to the consultant even seeing from Janet Bolton and she wants to know what a different kind of risk you just identify how do you determine the probability of each risk where what are the range of intensities of the negative impact and the the probabilities to which it changed over over the range and where in the eye is time accounted for so if you can be very pointed in your response to those questions erm yeah I can just thought I can I can tackle that probably a medium level so there is a chapter four of the EIA discusses the methodology that we use for both impact assessment and risk assessment so there's a subsection in there that talks about the procedure that we used to assign a risk rating all the way from low to moderate to major that at a sort of macrolevel involves 2 primary components what we call consequence and likelihood likelihood is the chance that the event would occur the event that would result in the impact inconsequence is affectively is affectively rated the same way that we do eventually impacts in other words when we rate consequence we rate the severity of the impact assuming that the unplanned event had occurred and there's a lot more levels of granular detail inside that I won't get into on this call but but chapter 4 covers that in detail and then with respect to the intensity ratings which are a component of that consequence factor that I just discussed there's actually for each particular type of impact there's and there's a set of definitions that were developed that are appropriate for the resource or in some cases for a specific impact to the resource that rate that level of intensity on a very objectively defined set of definitions and so you'll find that in chapters 6-7 and eight and also in Chapter 9 depending on the particular impact or risk looking at so it's a very very sort of transparent way of demonstrating the definitions that were stab liszt and the selections of those definitions that apply to particular situations so that the same thing any rater would using those same definitions would rate it the same way there was a question about time factor and I didn't quite follow the time question but if it's about it's about sort of extent of impact maybe I'll surmise maybe that's the question there there are factors that feed into consequence or magnitude and terms that factor into the various algorithms remove ratings that consider the extent and in terms of time and frequency in terms of is it episodic or is it continuous of the particular impact so that is a factor that we consider when we rate the various terms that filled up into a significance orchestrating alright thank you so there a number of very insightful and constructive questions and comments in the chat but

I believe we might get through a bit faster if the present are allowed to after their questions so we have noted your questions in the chat but you will also be allowed to verbalize that so at this time could they the track team on Newton's end of table I Diana they said Harry and miss font Wanda could you unmute them one at a time so we can they can answer your questions doctor J allow was unmuted I go ahead OK so we have about a five part question there so the EI EI essays and also has a high intensity of impact it's very low probability how do boat intensities of impact and probability of occurrence change overtime from the time you open a deep well to the decommissioning also if a spill does occur annual cleanup where will you dump the toxic ways says nothing about this you wanna take you like me to take these one by one Mr. Thompson or or work through all 5 so you wanna go ahead and read all of it it's up it's up to you I can stop there if that's easier so the question was cities or the probabilities change or oil spill as I'm at a high level but it happens a loss of well control I won't say always but most frequently when it does happen it happens through with them the drilling phase which is you know a couple of months for awhile I don't know the egl Steve if you'd like to add onto that that's probably the the high level answer to that permit question alright so let me talk about yellowtail you know or history determines how we react to yellowtail and so the question is is there insurance for Lisa want Lisa to which company issued insurance what is a third party coverage where is the proof of the insurance there's also no formal guarantee between Exxon Mobil and the God of government that they would cover in fulda shortfall of cost associated with an unmitigated spill which are not covered by its subsidiary shell company DGL does the EPA thing that is acceptable and so if we do the same for paraan now yellowtail is that acceptable Steve you wanna take that one questions right would you like to answer Let me let me just address that insurance insurance rewriting that evil hearted you to put in place the mitigations in person what was going in there something would happen will take that responsibility we have money Avengers two with us in fact so do you have insurance we have the capacity Australia and presentation said the ocean currents might take the oil away from the other countries so sweet horse possibility will it be to pay compensation to Caribbean countries for damage to their economies and a lot of those countries depend on tourism shipping fishing in the event of a well blowout will sor tagaris people be responsible good question again who it cost for instance and see what looks like and they want cost orange alright so the next part of the question is or vice president Mr Jack is reported to be asking 2 billion or insurance but when we recalled it Macondo 10 spill cleanup the cost was more in the vicinity of 60 to 65 billion and that intuitive damages and so does the EPA consider 2 billion to be adequate if we were to get that we are currently working on the insurance aspects and for this for this particular project we're the EIS stage we have not gone forward to approving and yes insurance has provided for an impact will be considered and we are actually developing a negotiating or with the company on the guarantees agreement as the DP mention and as well as there is individual insurance provided for each of the products thank you and so finally the yellowtail proposal indicates that flow lines on medicals abundant mooring lines under piles treatment all will depend on the seabed so this seems to contradict the best practices in all industry and so which has practice status of your study is it the World Bank or the international finance corporation standards whose guidelines are you using and what is the difference in risk between following international best practice and leaving all this stuff sick junk on the sea floor how is this good decommissioning practice and what guidelines are using this estates in the well I can I can start on that and I'll let the company at on Todd so that there is a DK preliminary decommissioning plan that's included in volume three of the EIA and it does cover this particular topic it's it's a good question that the current plan in nature envisions that the subsidy equipment will be disconnected after it is flushed an and prepared an intentionally left in place on the

sea floor engine indicating that's after it's flushed so there will be hydrocarbon materials left down there for saying so that said the decommissioning plan also states that alternative strategies will also be considered during detail start results of the reasons supercontinents that are described and those comparative assessments are based on consideration of international guidance specifically that from UK as well as well as their international calls out it's notable that this is a lemon airy plan for a reason because talking about something that will happen 20 plus years from now and you know the state of the science the state of regulations and guidance I think we can all expect that will continue to evolve and Dwight situations will continue to evolve and so lemon airy dcom plan points out very clearly that detailed comparative assessment will be done at the time at the decommissioning is being proposed shortly before that. So that current situations current regulations can be taken into account alright thank you very much the number of questions questions shortly person as well team can you unmute the next person indicate with this please OK so toggle my screen we have Mr so unmute go ahead very much when oil oil pressure release releases gases and water as well as oil no this the 4th project but there has been no monitoring can I interrupt you hearing fancy this is the project and we have had no monitoring results as yet despite asking for these what does been monitored lyric choir why are you so much oil gas and water sewage I3 required without the LC is at this point all about discussed in the yeah will have no meaning because we wouldn't be able to know how much is going on and what will be there pollute the environment store now I have asked PGL in summary this year they put me on to the government I've asked the ministry of magic and EPA and they have yet answered so I would like to know how can we approved this project then we are not getting what we required what we requested from the previous projects so this project the the process it yeah process as it relates to monitor and I assume you're referring to little one so as actually efficient team quickly probably Mr parasram could put Shea briefly what does mean dealing with this project and I want you guys to ask all the relevant questions regarding this post project this CI consultants it's not EPA question answers session it is for you too if you must drill the consultant that's the purpose of this meeting I will be meeting with you on Monday as I mentioned we are making efforts to improve our processes and we will make monitoring information available to the public be done we have been monitoring we have been receiving reports as well self monitoring reports we are making efforts to do real-time remote monitoring as well so all is processed but I'll give you more details when we meet on Monday but please everybody please use this option indeed to speak and ask the questions to the consultants it's for them to answer is not about the EPA consultants have requested quantities so this is Todd so I think you're asking about the quantities for destiny immunity and and you know as much power Thompson indicated this is a discussion about the yellowtail EIA and so that predicted quantities of oil and gas and water are described in the lighting project description section yellowtail and that is the basis for which the I was prepared alright thank you indicating that the information requested will be made available new the agency is monitoring and we do have data but that will be discussed with you for the would be really want to zoom in on the yellowtail yeah and so if you you speaking about proposed I'm quantities and so on in this case that would be pertinent but for the other information I'm expressing that he will meet with you and you and you'll be provided with that thanks alright so bad move on to the next person thing miss Diana unmute good evening everyone my name is Dana McCauley and I and I came here tonight impacts of oil spill on other Caribbean countries from the sequence project that we are now discussing and I came to say that this CIA must be shared with other Caribbean countries it is not gonna project there is a that shows in one of the scenarios are for modeling oil will sweep along northwest of Trinidad Tobago some of the lesser Antilles including the port of Kingston and as far as the Dominican Republic yeah he is extremely

long it needs time for everyone if I did which is not just like to look at it and for your son between our governments I hear you are used to hearing her in Jamaica or this comment to be directed at the EIA consultants but it is open meant to be going to give permission for this to happen how is why I came here today to see is it not abundantly clear to everyone in this virtual add we have got to move away from oil and gas drilling anywhere who works in the fields new days of the 26 hundreds are we really going to allow this to happen in the Caribbean sea there are governments we know are not capable of holding large multinational companies to account how we not seen Amazon Louisiana coast in EU S is sinking do we not know what the oil and gas industry has gone to the very atmosphere and we have to sit here this evening as if we are talking about actuary tables or something it is more boring than you can imagine instead of our survival that is what I want to say I am appalled at the whole sound of this this evening as if we were discussing something or no moments Jamaica needs to leave with your government and the people in my country and all of the other Caribbean countries need out of opportunity to look at the CIA what threats are being put upon us or what that is what I have thank you very much it's a public document I speak about the the period for review shortly the statutory period before we close but feel free to share it as well and we have noted your very we have noted clear your concern and and there is also not possibility to make further written submissions on on your comments on your recommendations moving forward can you please tell us how to make those written submissions yes I do that before the close of the meeting thank you next can you unmute the next person please thank you very much I don't see an official name or is this theory about fish fisherman alright so hi can you hear me hello see you again my name is list of professionals and that we as participants recognize that we perhaps have you a small quantity of EI is and those we have reviewed in a public interest capacity no disrespect intended a skilled and trained in consultation so which we are not couldn't read him tiptoeing through yeah he is the previous question is about language issues but with no disrespect I find it very offensive sometimes because we attended probably about 50 public consultations from the energy sector over the past 25 years it's very difficult most times we would speak at the end because we would want this because I hope you're there just sucking because they were just becomes upset the audience becomes upset unenriched communities and only successful safety of the project we are I believe a Caribbean audience who are concerned so when we speak on someone spoke about oil spills this question was in the first question? Response it said no great facilities in capacities to prevent it from ever occurred I wanna stay strong objection to hoodwink me question about fairness windy or coop because I am not aware or the company on the planet who have not had accidents and spills so the preparatory planning and the EIE cannot hoodwink the concerns that we're raising in Trinidad we probably have the world record for a recorded reported at 100 special year when the professional no disrespect real nonsense to see that no no we have read prepared we won't have any I wish I could put his daughters life on the line but I promised because he wouldn't be cause accidents are cool so my questions are based on the fact accident and I don't want along with a professional tell me because his trip proves otherwise Diana spoke about the impact on Jamaica and other regions Sandro Mingo etc but these are very real extremely real are Curry we to do testing hey Cortana convention and the the meaning matter convention of which we are not signatories and I'm certain that is not a single convention requires a testing fish for heavy metals and other contaminants because fish migrate overseas I don't know specifically for mercury they found the fish five of the 16 commercial fishing but create at five times higher than we would have limit consumption of fish government ensure that specifically and illiberally covered up that report who sued but we could not understand add what we are distilled is why would it come liberty sport that exposes the risk the public health of contamination

that may have occurred in Trinidad or merely partially responsible for the water that comes from the Oregon quote from others like that using mercury in the oil experiment and they cool distraction so there is a history of cover up and if you would like and anyone that you create like me to prepare instances of 12 we would prepare and send to you what we are seeing in Trinidad is that for us to accept and endorse and welcome you into our territory of the Caribbean region you need to respond to questions and good quote with us until it's no we ever get so my questions are the following I would like the I eat include a listing of the emergency response preparedness training industry we would like to see included in the IE the list cost and dates of the arrival of the emergency response preparedness equipment recognizing that this equipment over the horizon spill this waffle Ian advocate I'm requiring and requesting that before any approval is granted and our waters in our fishery nor tourism sector which we depend on but we need to know exactly what is your emergency response training preparedness and equipment preparedness secondly what we have on I don't need this any arrogance 'cause we do in fact next is the most important environmental management which is very strange on which feels be cause it exist on people and implementing regulatory agencies manipulated and bullied something specifically legislation for the created Greaves management of waste generated by these platforms what is the create grave statement on how it will manage its drill fluids and cuttings which 100 and 200 miles offshore we have to depend on the integrity of the regulatory agencies and administers apparel which I don't have any confidence in respect 'cause all experiences of relation in Trinidad but I want to see what is the legislation and I wanted to be included in the IE and I would like commitment in writing in the area by the company itself because we will unfortunately I know everybody loves their family and their wives but they don't love us and they definitely don't love me so we're willing to litigate the promises are not fair stop the capacity because of an engagement if they feel to commit to their promises in the IE and if you don't then some of us I willing to go the distance to ensure that this project does not continue and that if it continues it must only continue with the direction and discretion as approved by the coach sure which court would have jurisdiction but I think it would be international court all right Mr finally insurance because insurance but would like to see whether there's transmissional insurance to cover for the tourism sector I think it's critically important official sector of which it dependence I'm totally foot biodiversity loss it's a good cover for variables heelas particularly I should have like to see India policy please translate crosses border additionally two years ago we had a blowout 42 years and there were no copies of the world infrastructure so the team had not been dropping what was there so when you spoke and present present he showed that 100 and 200 years from now I I really have to smile because you are so correct 102 years from now your shareholders and you would be long gone happily enjoying the benefits of the extraction but we are left with the responsibility so I would like to see in the eye what is the long term**** or emergency response capacity I hope it cost per accident good longer finally on the extractive industries transparency institute where we observed in Trinidad Diana has a similar facility but it should it should and although the iti does not go the full distance in determination all of the impact is sorry to to disturb you but Please remember that we have other persons who would like to contribute to the discussion I lost six weeks unless the Chinese population a fully aware of the comparative value for volume directly from this structure they should put their full force to deman Ding contract transparency on the clear analysis that Diana is being fair share in royalty as you may know even the IMF complete that the royal curates agreed by this company for extremely low compared to the world value peaden warranties for volume becausr these are not renewable resources and we risco ecosystems or health or heritage or vulnerable communities and an endangered species in order for this extraction of akutsu the least we should have

is a full understanding that garner is earning in its contracts value that is comparable to Alaska the Easter more etc thank you for allowing me thank you follow up in the beginning thank you very much for sigari so there are some recommendations as well as questions very important indeed allowed to respond and and we can come back to you if you have additional questions before the session closes yeah this is toggle like I heard a couple of questions that I I wrote down that I want to respond too quickly and thank you for the questions either way you asked about a list of emergency response training and equipment the oil spill response plan that I referenced doesn't include that information to discuss is training it discuss is the specific pieces of equipment that are available the specific regional third parties with which EPL has existing salvage contracts if needed level of response so there's a lot of very detailed information I would encourage you to have a look at that and if there's any additional information additional questions that you have happy happy to discuss that but that is that information is in the world still responsible you also asked about waste an we didn't get into this details I want to provide an additional rendered air that the perfect word right to grave analysis there is actually the cradle to grave analysis at the EPA required air document that goes through all of the waste involved with the programming and how it is makes change from it's from the very beginning to the very end that particular study add into what is what is referred to as a comprehensive waste management plan which is an affiliate level so numbered it covers not just the yellowtail project but all of the PTL's activities in country or waste management plan that takes into consideration the results of that cradle to grave analysis study and prepares a detailed plan for how waste will be managed for all of the PGL's activities in country so I hope that that information is addresses the questions in the comments you Adam happy thank you very much so will not move until miss Wanda and Anita can you handle it hear me CR yes yes OK thanks so I got him Microsoft concern originally or three persons so you'll have to my questions yes I'm still I I want to speak about the standards and best practices so which I would like to eat you which standards are obligatory in the industry and which breast practices are being followed where are these obligatory standards documented in the eye a where can we find these best practices for instance where is the log book for each practice required to or a sample given where are the monitoring and reporting procedures in respect of each standard where the reports from monitoring from day Lisa 1 Lisa one wells and could you name the independent auditors that are verifying which aspects of your operations and where are the audit reports published please share study please share it be treatment and monitoring of pollutants and hazardous elements prior to discharge in accordance to permit requirements International Convention standards and this positively best oil and gas industry press now we all know in the world that related to related to the goings ONS of the oil and gas industry that we have we need 1.5 C Celsius to stay alive 1.5 to stay alive history in suppressing science over the years and its impacts on global warming we hope that there are some more enlightened Exxon working here for in Guyana concerning 1.5 Celsius warming and the need for create a model for the 1.5 Celsius warming we're asking to if you could please explain how you will manage each risk including the impact of sea level rise on a receding shoreline of receding relevance impact on fish nurseries and therefore livelihoods of fish errance and the impacts of Exxon Mobil related shorebased hazardous waste such as the one next door to me here which number show radioactivity sources to be stored etc and the impacts on the general health and well being of humans my question is has the EIA quantified emissions including yellowtail exploration drilling transportation flaring oil ifs oil barrel discharges and modelled climate impacts based on emissions apartment I offside and siege for impact in pushing the warming levels above 1.5 steps cited as much countries worldwide which could be underwater from the sea in Persian by 2013 based on the IPCC end of hundreds of scientists word over in their 2021 report

according to current load projections are raising global warming to 172% from ocean of Newcastle he went reading such as yellowtail at all and all of the oil has lined up to take please have you therefore specifically in your IE addressed the cumulative effects and impacts of Exxon Mobil oil drilling contributing to Diana C warming have you specifically addressed the cumulative risks and impacts of these fossil fuel especially the yellowtail including flaring which are in contravention of the UN of our climate agreement that Diana and all of the Caribbean are signed in 2015 in Paris and is ratified by Guyana and their target set global target set and agreed globally these are my questions and I like them answered and just to finally see this is a recommendation don't take it lightly if all of your planning I got sun mobile EPG so wonderful personality bypass take all your weight on all your radio after all of the toxicity caps is I guess would be a very good solution thank you very much thank you miss Fonda yeah this is this is Jason Willie from I can certainly take the first two questions on the standards and the monitoring procedures there are there are three volumes to the to the EIA and the third volume contains all of the management plans and one of the management plans is called the environmental and social management plan and that particular document in in volume three has tables that list the standards that that the consultancy has recommended the pipe to the project as well as the monitoring procedures you also asked about applicable treaties that there is a list of local treaties in this chapter for the of the chapter three of the CIA the administrative framework there's a table of those those treaties and then remove you know what they entail in the in the the key agreement agreements in those treaties parrot Todd do you wanna take the climate one I heard I heard a couple of questions about what the EIA doesn't include the first was as the EIA include quantified emissions the answer to that is yes the I includes as I as I mentioned on one of the slides and emissions inventory for what are called criteria pollutants as well as greenhouse gases so detailed year by year inventory for the entire project lifecycle for yellow tail of the greenhouse gas emissions that are eliminate from the project there was a second follow up to that out whether the address cumulative impacts at the answer to that is also yes so in addition to quantifying the emissions of greenhouse gases from the yellowtail project a similar inventory was prepared for all of the offshore projects that are within what we call accumulative impact assessment basis so there's a list of the past proved and reasonably perceived will future projects inclusive of exploration drilling and the greenhouse gas emissions for all those are quantified added together and that's presented in in the feeling of impact assessment section in chapter 10 The global scale and so that the global climate models that are used to run all of the analysis around the 1.5 billion two trees in areas those are upscale that where impact from anyone project is wouldn't show up on that climate impacts you can't you simply can't model that within a level of accuracy that would be worth doing now that said the focus of the EIA is on assessing the degree to which the project is it's doing the appropriate thing is committed conditions of greenhouse gas formatting from this nature had comments about the Paris convention those are great points those comments are apolosi nature and purpose of the eye is is to is to assess for this project weather appropriate mitigation measures are being taken so that's what we wanted was do you have I I'm finished I'm finished I'm just at the haps it would be interesting because we can't escape from the fact that what cross if he was doing what erm sorry what Exxon Mobil supported by erm is doing is contributing taught the bad things of our planet and contributing to the warming above the 1.5 to stay alive and at this time we stop wanted to rob what is happening on Exxon Mobil is going to be damaging undestroyed not only Rihanna and so on for the planet thank you much for your contribution also correctly please unmute yes good evening everybody yes I start WhatsApp questions and my contributions I would like to kind of also speak to what some of the last speakers refer to and that includes climate change as everyone knows cop 26 in Glasgow

continues what is being hammered out there is a way to ensure that the planets and all living things stay alive and it's well accepted that the one of the main contributors to global warming climate change etc is fossil fuels but yet in Guyana who continues to expand their exploration and drilling for oil and is that they are benefits to us but can be the benefits when we are below sea level and as vander said Georgetown is one of nine cities which it you know it has been calculate it will be underwater by 2030 so we have a project or current you know in in Arizona now season which is going to affect only us first line in 2030 a lot of us here are still going to be alive but it will probably more than ever affect grandchildren and our children right so that is tape that contacts but I will go on specifically like for once I like sentence that I have seems to be a bit of confusion about produce water because there was a report I think was November the 7th where Mr Alistair Routledge from ExxonMobil pressed that the preferred method of dealing with produced water would be 2 discharged into the ocean and so could you please play 5 yellowtail is not going to re inject yourself because because some confusion there anyone and yet they are other things with cottage conflict with that so could you clarify if is not going to re inject the produced water and if not that would be a contradiction applause 12 or PSA 2016 top of this change in 2016 I would you agree that government can change its mind this specific items in the PSC secondly is the EPA willing to hold Exxon he PGL Exxon move EP GL to reinjected which is produced water instead of reset into the marine because it is a tale because you know we won produced water is occurring in the production of Lisa one so our understanding is that is also being discharged So what you have is a accumulation of toxic waste is may be charged into planets water so I didn't look at the first volume of the EIA there is a table yeah yes three which indicated that these are daily discharges of waste into Diana's waters from yellow cool in water it is would be 1,900,000 barrels be or three or 4000 Mitchell's that's just that's daily for produce water it would be 225,000 barrels per day or 3.600 cubic meters daily wash water and grime and that will be our 315,000 barrels per day also released or 400 cubic meters the first one is the village water and that would be 1800 barrels 50 or 288 cubic meters right so when you calculate those four things right and this is daily it would come up to 2 million 442,175 barrels per day or 358,344 cubic meters of base discharge independence waters great daily right if you decide to help in this for months 820 years this will them up to 60H come up to 60 inch 100 if we used this measurement and calculated because you know we know gallons better so this would then come up to 2.8 billion gallons a month for 20 years 'cause I think that that is the the period for the yellowtail project right into the waters again and it is very hard to believe this will have no impact you know into the sea and all living things that are into are in the sea and as Mr abboud said is that fish these things consider their body that fish is then quote you know through the fishing industry and consumed by person so we don't really know this we don't know what would be the effects of 2.8 billion gallons a month being discharged that's not even a year and calculate that I one year and then calculate that by 20 years and I'll be saying that the ocean will not be affected by this because besides this we have Lisa one we have pie arrow that's going to big develop we have can she and they're all going to be discharged in these same four items right plus we have other countries in the region also be doing an oil exploration and drilling sorry now we have even though that might not be going so well and we have Trinidad and Tobago right so we're talking about large volumes that are being that watch is and you know our seas are being affected and I think we have to understand that the ocean is not a finite thing you know it's it's you know it's not not finite it is affected and the last it's able to deal right with the missions in in the atmosphere the worst entire planet will be under more global warming will increase right so Because I spoke about three things produce water cooling water and then there's some ways for turn so long and it's important because this same table in fact identified some of the content some of

the things that are pollutants in these four types of waste water it could be could erase Adele president Joel flory but the produce warters oil and grease for the wash water and Brian you could have biosite chlorine some kind of oxygen inhibitor in that put the village water increase again right so you know this this is your study that you have identified these are asking even if it is treated in some kind of way it will never take out all of the contaminants so it's very important that we know exactly how much it is going to be treated and discharged into the ocean I walked are the standards because in this table it doesn't speak it does not specify what are the international standards it refers to international samples but it does not specify them the table that I spoke to which calculates it has the discharges of these four items but it does not include treated or untreated sewage water and Alice water discharge so the balance water discharge is calculated as 629,000 BBL right this is in addition to the figures I just bought it for you and it's not really clear how often right this will occur because that depends on how often the tankers will come to the floating platform for the floating platform to discharge point into the doctors and then they will go where they have to go right and also does not take into account those figures that I hear of the consultant did refer to this round discharges of drill drill drill in testing and installation questions as it relates to the produce water right and as we know from the table this is 225,000 barrels birthday can you say what would be the monthly average and the daily maximum concentration concentration that is milligrams for legions of total oil for the produce quote discharges Washington school so secondly how are you going to check that reproduce water from yellowtail wells and to what standards this is more specific for produce water and if you could tell us the standards that you will be using you see how I'm where you will be treating your produce with water on which components of the produce water will be treated I just wanted to to mention this because the capacity of the floating platform down understand it is 1,000,000 parallels of oil that is what it can continue in it the estimate in the table that Irish word which is in the EIA right says you will be generated 225,000 barrels which is watching a date so happy word days you would have filled up the tongues of the floating platform with produced water I just want to say this so you can explain to us how this is going to work right yeah so I think II will I think I will stop stop here and thank you things miss are you free nurses and really pointing submissions Mr real team one to the question if you miss anything right repeter I can share some helpful questions answered here I can I can start this is hard to work with order roughly so you asked about the treatment standards for oil and grease there is an international standard or produced water that the project will adhere to which is a 29 milligram per liter monthly average and a 42 milligram per liter daily maximum so that's a that's a generally accepted international treatment threshold for produced water discharges and that is the same one of the project will pass so that's a specific answer to that question there are a number of treatment technologies that are used to remove on produced water to get to those discharge criteria that also removes other contaminants as you might imagine so those are those are installed on the FPS so for the purpose of adhering to those international standards you asked a question about the produced water relative to this to the storage capacity of the PS oh and I just wanted to make a slight clarification there that produced water is not stored in the in the cargo tanks of the FPS though it's produced water is separated from the oil royal and then treated for this charge the crude oil is what storing those tanks so that select produced water and doesn't doesn't get involved in being stored numbers might look a bit odd with respect to produced water there is a there is and it's in or summarize resting discussed impact investments on water quality and those same results are actually covered in a number of the biological resource impact assessments whereby the produced water stream and the cooling water stream were both modeled with the so we just talked about so the computer could be sorry we could use it or to predict the passenger love those particular constituents in the ocean around

the area so so that is a that is a major part of the IA factors in the ocean currents and the dynamic conditions across the year and uses a very complex model to to take account of those dynamic conditions and the discharge is the specific discharges at the specific flow rates that you mentioned at the specific concentrations that we're talking about here so that you can predict what Jason referred to as the mixing zone in other words the area in the very local proximity yes I would which there will be exceedances of any sort of ecotoxicity thresholds so I just wanted to make clear that the I it does absolutely acceptable and then I think ask question injection reservoir discharge I'm not I'm not certain what doctor you overdo I just based on the alternatives analysis that was done the EIA does reflect the plan to for overboard discharge of treated produced water so if there was any available indicated that selected element of project design that I'm not sure what that is but it's to clarify what the yellow tell ya is based on I don't know if I may miss some earlier in the competition so but just two two additional questions I would say in terms of the balance water what is the capacity for producers to be stored floating platform but will be stored but someone could you say what is the total yes storage for that that is one at the other thing is that I think it's something that a number of persons who spoke before me mentioned and that is the monitoring colleges is because the EIA can see these are standards this is this this is that monitoring monitoring 'cause I will check all that you have set research it in terms of engine stand are you Siri but what guarantee can you give us that independent monitoring will take Please remember in Guyana with Lisa one you know how many times we have been told that the compressor would be fixed and that clear it would not occur in Guyana you know how many times how many times we heard it was going to Europe and I don't know which other country of the world and it was fixed it has come back it's not been fixed continued daily who's clear you know which is one of the most toxic you know things to to affect climate change I know that you just talking about that too but we have to see this we getting these have seen their promises made to us in relation to Lisa what clear and have not happened and you know it venture to Europe and it came back was never fixed no one can understand what is the problem you know but we know that Exxon Mobil is a hugely rich outfits and corporation and it's hard to imagine that they have something as important as a compressor which is effective and ensuring that you know this fair in every single day in Guyana you know CO2 into the atmosphere and also but coming back yes what guarantee will be have and what system will be will be put in place to ensure independent monitoring of what we discharges hit to what time am I sent this charge into the ocean as it relates to you dependencies very good questions there and I appreciate you asking treatment that works is reservoir get into 1932 Water is coming out hey just separators that will make some gravity separate out the gas the oil in the water and that water that goes with it goes through going round and let it be collected the water the past location again and then it seems highly and 21 milligrams under that the moment at World Bank standard that's how we report that clear haggling it doesn't get these jobs grade 610 and get straight again to make sure how much would you spoil essentially a minimum amount because it's going through it continuously jobs Thank you very much could you take if if they know they shouldn't question are you home OK alright so over it so malena malena Harris have your name correctly can you admit emphasis things questions um this one is directed to erm why have you not extended your consultations so there are other Caribbean stapled is will be affected by beltsville Mr Willie are you there yeah I'm here so yeah we have we have to this point can find our quote our engagement because this this is a guy on a project that is being completed under walls of Diana and the and we are following you know the the the guidelines consultation is the end up that's not answer you said you have some additional questions sorry try unmute hi thank you it was a follow up question just the area of influence on this project extends beyond in the event of an oil spill it

excels beyond dianas voters and it directly affects the other neighboring countries like Trinidad I like Jamaica Venezuela so that being said yes you might be guided by God's laws and procedures but the actual reality of the situation is that the project has the potential unless there is some statistical anomaly that we're unaware of two pacts neighboring countries yes we're we're aware of that were well aware of that due to the modeling that was done and that is why we have I believe it's section 9.24 that's that's a whole section on transboundary impacts where we have individual discussions that go into the probability of oil reaching any of the countries that the modeling suggests it might reach Anna summary of the high level sensitivities that that we've mapped in those countries that be affected so firmly transboundary impact something that we that we took seriously in the in the unplanned events chapter the IA miss Harris you have to unmute you mentioned that there would be legitimate costs we put in place just costs is a very ambiguous home and I would like to know specifically if that would address the ten thousands oarfishes fisherman who depend on the sector for their lives and livelihoods would it then cover the affecting our neighboring countries affected tourism industries would that be compensation for gynae citizens were also affected by such an event what would these be People getting better ending on the event claims and Pasteur claims process then yes we would pay those those costs do you have additional questions column yes this is the question for the EPA on the specifically it's just a question in relation to the process of these consultations at what stage is the eda grant permission to go ahead without insurance in place thank you miss Harris This person clearly you guys hear me now yes you're coming through right so restroom Thompson are toggle heading to meanwhile so so this is part of the process Indy yeah process where Wendy is submitted the developer and consultant publishes notice we by virtue of getting posted face direct meetings after this review period there is a 60 days. Review. Input from the public from the sessions as well as the environmental assessment boards review which is currently ongoing we also currently finalizing independent export review as well I'm still sleeping sometime will be hearing are we must finish Anon meeting next person I just check on my audio sorry but so all of these inputs as well as the reviews will be prevented provided to us would recommendation or degree from the E as well and the EPA will have to consider these in determining determining whether to approve or not to approve OK thank you very much for your input questions that said I'm very aware of the time so thank you very much OK thank you miss mango can you hear me now yes honey note an email you to make our contribution OK alright so please go ahead and you can hear me it's hearing alright yes we can hear you good evening everyone and thank you for organizing this event at our request I have two main points I wish to raise but before that an entrepreneur emphasis there are a few I thought very relevant questions asked that have not been answered yet and I would be grateful if the team would respond to these questions one of them is if there were in the event of an oil spill there one had to clean up where would you be disposing the material that you clean up precisely exactly what's the plan so that hasn't been answered doctor asked about the methodology for arriving at the ranking that you did for your risk assessment she was riford to sections of reports rather than provided with a scientific went into coming up with that ranking system and I think this is the crux of an EIA so it's something that must be addressed it I have read it an I myself cannot see where the scientific rigorous so I would like to ask the team to come back to that as well the the issue that Mr bill I raised which concerned the monitoring that has been done on existing production areas I would have to say Mr Cameron I don't agree that this is a dissociative should be disassociated and the reason I think is relevant and reasonable is because when you look at the EIA so it's the same applicant and previous CIS have been done by the same firm without that monitoring information we have no way I love looking at the credibility of the assumptions that were made and we're being asked to accept this

second study on the basis of very similar assumptions so the question is we have the tracking system before at least to know what the impacts actually look like compared to what the I said they would look like and I definitely troubled that Mr belies had such a run around to get information and I don't believe this is a one on one issue this concerns all of us is a public matter it should not be something that Mr bill I has to come to the EPA for it is a matter that needs to be available to the public an answered as part of this CIA process the part of the issue here that concerns me is that it does speak a bit to the credibility off the applicant the credibility of the day which they are charged then you have to run around together nation 3 sounds so you're adding up or trust or distrust topless present EI system when it started stuff is not the available also feel that the question of cost and benefits has not been addressed so when I read the CIA what strikes me is that there's a very prejudicial description of benefits without a robust discussion costs and if you go there you have to plant just be highlighting benefits here because those are easy things for people to understand but it's a lot harder to understand for every barrel of oil that you advertised in that beautiful full page ad that was in the newspaper what I undo asked for the public to truly grasp what we're dealing with for every barrel of oil per day per month for this project while toxins that are kind of water or air I think that when you are like that you must be perfect parent so every time you put an ad in our newspaper during nei a process that does not separate these two things are supposed to be coming to an object from but a nice glossy avertissement undermines that objectivity it's pretty it's appealing it can leaders to move beyond thinking quite deeply about watering aging so the next time you do this add or you're running an EIA consulte tive process and your most to do an ad Please ensure that the ad is is not a half truth it's the complete truth and that truth is not well respected represented in this CIA yes there are pieces you can go and you can see the tables but it would be very helpful for you to put it in the public summary and in the summary of the eye is very upfront this is really what we're doing so that's about process with in terms of content I I have one comment but before I go there there's one thing that I believe is quite disturbing the EIA document introduction page 117 in fact it just called side shelter who as you elected official of the governing party but here in government he was on the piece list of cap and it's for the 2020 general regional elections as far as we in Guyana know we have elected this party with Mr schnatter anilist to govern Diana how is it that this can be an independent EIA when there is a clear link to the power the highest level of colour and I don't see that much conflict of interest in the eye I searched it so please correct me if I'm wrong there is no declaration there's no explanation of how such a conflict was addressed in the production of the work so the question is this Candace CIA qualifies independent and can EPA be considered as acting independently of the governance add demonstration that supervise directly from the office of the president when it comes to assessing and improving the CIA prepared core prepared by publicly signed for by an elected official of that government this is a very pertinent issue it's very relevant it's not about diane's politics it's about the act what is the requirement of the Environmental Protection act so that's that's my comments on process I know want to address their many night affirm what many people said before and I'm disappointed because I have word that Exxon Mobil that was to a Washington based at an office in Guyana conservation national and the intent of that was to support environmental management and you know the works it fell through eventually conservation international withdrew because of excellence record where it has continued to clear divide is reaching contract but when I went to the all the words I was flummoxed by what I found I have not actually engaged TZA processes before in down at the first time was in July when you have the gas to shore meeting there is a fishery study there it has no comprehensive mapping all the fish nurseries in Diana ornate countries at the feeding off fishery sector there are no indications ever in any baseline study marine baseline study done very

patterns are far Marshall or not commercial fish compared to that whole zone the mud that except that it extends all the way to another in Brazil there is no description material or financial of the fisheries value chain there is no quantification of the economic value direct economic financial value both in terms of its contribution the contact to subsistence economy there's no quantification of the strike value of that industry in terms of livelihood family dependency or the importance of fish consumption to the people of Guyana there is no information on the any chemical testing of fish there is no baseline data had ever been collected before you began to use extensive seismic surveys offshore of gamma extensive and continue to do so and you continue to drill stop in fact there is absolutely no baseline data whatsoever elementary one could be possibly responsible about which is fishing ESO has been conducting an in-depth CI you're talking about 40 surveys which means this stuff is going on overtime so we are in situation where regulatory authority under the peace administration permitted this to occur and our regulatory authority under the present administration is continuing with this this is really you cannot submit in the IE where you have failed to treat with fisheries with nurseries with migratory patterns with catch per unit effort how that has changed over time comprehensively not a study of region six one guy in region two one guy region for you have the resources to do this you could have given it to conservation international you could have hired a firm to do it for Ghana and I think that you have not done well you have not done by the fishery sector of our country and they have an incredible incredibly important role to play in terms of all the downstream valued it comes from them but also assistance value fit in an incredibly impoverished environment and so I would like to know where are you gonna go in now in terms of addressing this huge deficiency in the CIA had all of the work done in the oil industry because you have no baseline so today our fish is are not getting fish and you're in a position where you don't have to be held accountable are responsible and that doesn't help your credibility one of the biggest issues we have here is the credibility of the applicant an applicant who has breached its contract and continues to flare gas an applicant who refused to tell me in the gasket RTA consultation what the price of gas was but I know it now because you are paying us 45 U.S. dollars per equivalent ton of carbon dioxide to dump this toxic material in our airspace in the Caribbean airspace so it's minus \$45 but you're coming to us with another project that's in there for the I approval into are presumably going to be charged with first round that acid that is no value whatsoever the dump product so there is a credibility issue here and it comes back to this point I made earlier we cannot come away in the CIA from looking at the monitoring and watch effects that monitoring his showed has has been happening on outside of offshore ogana but also on shore of Guyana anan I want to know from erm add from Exxon Mobil and from the EPA what you're going to be doing to address free tuition right now thank you thank you miss mango for your very instructive submission he peed here here here earlier I'm sorry an EPA in that order you can respond I'm sorry miss Brewer Thompson did you ask for EPG how to go first or yes but you can go ahead Mr Willie OK so yeah I guess I'll take so I've heard the monitoring issue the the NTS signature issue and then the fisheries issues so first of all the fisheries issue so we we do have a report in appendix 2 it's called participatory fish study you refer to I think you referred to having some people up and down the coast that provided information to us that's true that is how we did that we did that survey hand that survey is ongoing it it's it's continuing to be done for another year right now so in terms of answer your question about how I guess superscript baseline that is being interested more baseline that is being conducted corrected right now directly from participants in the fishing industry through through that study in terms of monitoring of the ESM P that I mentioned previously has a section so we devoted to recommended recommendations that our team made for monitoring and it it words of host different in all three categories physical biological and social economic

in terms of the NTS you're also correct washer was not on a draft version of the NTS they got they got posted by mistake we apologize for that his company was involved in some of the studies that were conducted previously not as part of this CIA we did use that data in the CIA but his company was was not directly involved in this CIA again we apologize for that confusion my understanding is that a new version of the NTS without his signature has been posted on the on the erase website so that that was just I was just an error on our part how I I guess I'll turn it over to EP GL I think I've answered questions to us thanks EBay question around continuing Working to understand thank you thank you so thank you for your questions I just want to clarify that I didn't disassociate the monitoring data from this I was just referring to the aspect of the availability of our our monitoring and availability of information and I just want to say publicly here you know that I'm do you know looking to make improvements in the areas where the EPA was deficient in before and I'm making every Part 2 in this case so I'll be will start seeing necessary in keeping with the Environmental Protection act with regards to consultants is an approved list of consultants list provided by the developer and we examined that list and clearly he is talking list so I'm not part of this consultants that we approved you look at the should be a list of consultants who actually conducted this I thank you very much so I know where we are passing this time but I will just break her in a chance probably for 15 minutes because you're five hands you want so the opportunity to ask questions or too soon I was looking then the questions and for the persons who have never had currently and if their additional persons thank you alright so we're now to Mr Glenn and he will be followed by miss right up the truck can you please yes For the gentleman about the quantity of ballast water coming on these ships Mr proposed yeah yeah I can I can answer it yeah as detailed in the table the other commentors referred to maximum listed expected tanker ballast water volume is 100,000 cubic meters total at each tanker loading event thank you miss Thompson I am hard so many so many questions on this insurance and we haven't gotten any solid answer question we have been Diana I've been sitting with a premium senses Not only to Diana and tire region if damages I have been hearing all the time but we have insurance you have insurance about this wraps guys you have discussed that during the consultation para I was I'll be hearing the quest to be having shoulders do we have and can that be made public

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Previously has a section so we devoted to recommended recommendations that our team made for monitoring and it includes a whole host of different resources in all three categories physical biological and social economic in terms of the NTS you're also correct Mr noctis signature was on a draft version of the NTS they got they got posted by mistake we apologize for that his company was involved in some of the studies that were conducted previously not as part of this CIA we did use that data in the CIA but his company was was not directly involved in this CIA again we apologize for the confusion my understanding is that a new version of the NTS without his signature has been posted on the on the EPA's website so that that was just it was just an error on our part how I I guess I'll turn it over to EPG I think I've answered questions to us thanks thank you question around 50 states you doing stand

Yeah website so that that was just that was just an error on our part I I guess I'll turn it over to EG I think I've answered the questions to us thanks thanks Jason question around and I understand I aspect of the availability of the hour monitoring and availability of insulation and I just want to say publicly here you know that I'm there now shrink four months and I'm looking to make improvements in the areas where the EPA was deficient in before and I'm making every effort to in this case make information available so you will start seeing efforts to Hindi makes information available as necessary in keeping with the Environmental Protection act so that will happen sometimes there wasn't approved list of consultants list provided by redeveloper and we examine that list and clearly Mister noctor is remc is not or was not on that list so he's not part of this list of consultants that we approved I think if you look at the guys selfie should be list of consultants who actually conducted this alright thank you very much so I know where we're passing the stipulated time but I will just prepare indulgence probably for about 15 minutes because they were £5 raised anyone so to allow those parts of the opportunity to ask clear questions or to make clarifications when necessary alright so must be going OK OK so I'm happy then the question answered for persons who have your hands with currently and if your additional person you'll get older thank you alright so right now and he will be followed by miss right doctor truck sorry can you please yes leaving the store the maximum listed expected tanker ballast water volume is 100,000 cubic meters total at each tanker loading event thank you yeah under miss Thompson I have borne so many so many questions on this insurance and we haven't gotten any solid hunts I have been Diana been sitting with an agreement 110 stairs lead up to form it was granted in which play supposed to sign anselm activator ticket above full responsibility I'm just watching tile region I have been hearing all the time about we have insurance the other charms but I have not been hearing about this full cover insurance you guys you have discussed that consultation and I was given you can get up I've been hearing all the time over and over we have insurance what insurance do we have and public 1 so the question is for EPG yeah thank you responsibility and and if that happens I without now be sure and space I think it's important I'm saying that insurance is more than up to the facts recovery of costs that they hope entries at the PGA leave something would happen that could be any sort of incident that the key is that we have that finished with apacity to meet the responsibility under the agreement and under law add I we are in this for the long term we've invested billions of dollars and we have a shared interest with the country of resolving the effects of any adverse events as quickly and comprehensively as possible so we committed list dancing again nobody acts we will take care of that call insurance we needed it policy we need a signed policy we don't wanna hear from nobody lives in this world we will take care of that we will guarantee that you want it in writing Sir if you transfer I think it's in writing in the enrich your project document it says fairing 2/3 of the amount I'll kill it 100 feet what Lisa on ice cream from 2019 to 2021 comment on that and what what will be the future on the project and if you don't mind your language a little bit louder I did struggle with your comments a little bit but I think understood and that yellowtail website typically we do have impression installed on the one of those compresses goes down pause then you can switch over to the next 100% and so we continue to work projects and and yellowtail has that on there we also have other technology included paper recovery units to take up small amounts of gas instead of them younger they get captured and and it put back rating system rejects through extra technology strikethrough that on anyother time hello I'm tired of hearing you guys with this type of language we're putting same thing we were told Lisa one when the compressor keep going down every two weeks it has to go for water Germany it's gonna come back in six weeks along the time it's going back and forth it's what avoid assemblies now you're telling us going to be different nation and tell us that you guys in your project no please that you're not gonna be injected gas it's too costly to be

injected I know you're telling us you're putting technology what kind of games do people playing with people people and people like project document set up reaction monthly or daily average put through the system until it does go round and round until it doesn't like that we report that EPA monthly annually as well honestly yeah my my last question Wisconsin the project cost project cost on fire but the nation see that and also we see the production report timer para yeah if it's available production of much of a pilot project cost of the project I have a project is that available and the production report let me go I think coming iris is not insert for the yellow around 9,000,000 alright so if I can paraphrase is that the silver we're looking at you referring to pyro mati mentioned the cause causes that you mentioned just now this is like using my heart OK project and I'm asking this question now people be able to see they cost bill after bill because the stop slide here I've been hearing on every project you're dealing with the one who empowered power covered and if all these things will be available to the nation alright thank you very much Mr that if I can briefly speak on the EPS perspective still section third psychopy Environmental Protection act has specific requirements in terms of what the agency should make available to the public you can see that there a lot more information that needs to go out into public and and we're working on getting that information in a format that can be easily accessible and readily available to the public as introduced the EPG LLO the miko or one of the other representatives from the team to respond in that regard earlier and even this one R I Internet this part but if you can if you can hear me I did not get an answer ExxonMobil company agreed agreed agreement in which they were set up company on from responsibility above and beyond insurance from EP GL I didn't get an answer clearly on that can somebody give me an answer that hello has BP is currently reviewing and negotiations with the PGL and plus we're having our legal minds as well as Mr resources to review the draft agreement and the contents. So it's still in negotiation that's a guarantee from the various partners affiliate guaranteed right now do you have a time I'm working assiduously I'm just waiting to feedback from illegal minds recently ministry natural resources on their team to provide your feedback I'm sending it to the AG chambers with their review as well I'm hoping to wrap this up as soon as possible so as soon as I'm comfortable with the agreement then I will sign in help them sign every citizen of this region this Angel other insurance might I am very much one son over this scenario probably keeping my fears and high school on you maybe next week will get upset Mr lol I understand your concern but I am making sure that we are unforgettable before we sign this document so I'm going through all the hoops to make sure that it's an agreement of yours aspect of Aleve project would be with Diana with the region be fully covered you guys have a good night thank you very much Mr Lyle we are now move on to miss trust OK insurance Environmental Protection that's what we will be looking at alright financial assurance Steven Environmental Protection act and that's what we will follow question and answer OK thank you then alright so we also doctor trucks an icy miss mangels hand up again and we have Dennis and miss Fonda persons I'm seeing on my screen go ahead and everyone really about boundaries or time geographical operations and some follow up on questions that others have asked that you have not answered so I'll just ask him and individually and get the answers and then go on to the next how do you present in essia when you're still collecting baseline data as is the case of fisheries as highlighted by Missy my macro Joey Chris question could get an answer here yeah so we are still collecting data that's true and you know as we've gone through the different yeah the sum total of the data that we have at the time that we did we write the EIA that doesn't mean that we don't want more data for the next project and that's why studies continue to be done how do you evaluate the impact of your operations including a spill without consulting all communities that might potentially impact including residents of other Caribbean nations OK well I think I think we I think we talked about that that before but I mean to

reiterate you know what I said we've we've conducted the we conducted the consultation within Guyana because this is a project that is being prepared under gyani as well specifically the Environmental Protection act but you agree based on your modeling studies that you can have potential impacts in other Caribbean nations certainly certainly we do and that's why and that's why we have included the information that we have in the unplanned events chapter and particularly the transboundary effects the transboundary impacts portion of this chapter so that in terms of evaluation social impacts social minicomomic impacts on the assets in the other countries that was not done with any underground analysis or speaking with anyone there we did take we did do a validation we did do a validation exercise in Trinidad and Tobago for the LP for the Lisa phase one EIA and we did talking about yellowtail and you guys emphasize that earlier yeah that's true but we have used baseline data that was collected for previous CIA's in many sections of the yellowtail EIA two to your to your initial point about using as much baseline data as possible so you have not conducted any consultations for yellowtail simple answer next question how do you value the impact of wasting your operation including short days support services when they will be dumped in a little down fill unless there's another option that you are including for which the proper functioning is unclear and more specifically is that we have no water quality monitoring data or air quality or any other type of data is being shared publicly for has Bosch save water quality from stormwater and shape which does eventually end up in the demerara river we have no idea how this was 70 performs in the future climate scenarios which models do predict will be underwater questions in terms of the boundary of year waste management considerations which contains presentation cyber extremely good and so do you take into consideration the endpoint the grave point of where that waste is going and where does the liability that you have hazardous waste coming insert facility that is potentially not being properly managed for hazard space I can speak to that doctor Travis Todd so so the the landfill that is used for the project is an engineer licensed permitted landfill I understand your your perspective on that but it is specifically selected by the project team because it is licensed by the representative it is so you are basing your assumption that it's licensed and operating according to whatever dining standards are yet you're using standards for excellent quantities and all sorts of other stuff based on on world you know EPA U S EPA or other types of of of House of regulation of regular Donuts in other parts of your study terms of liability and taking that waste management process if that landfill fit is failing or fails and I'm not sure how you prove that landfill is mom it is is properly processing hazardous waste right now without access to data is there liability for for you putting hazardous waste there I just found this to find out where liability falls when when that facility does not function properly and in terms of how much did you do to understand whether that facility is working properly and can actually take the waste that you're putting there ericer Steve I I don't know if you want to speak to some of the waste assessments waste infrastructure management assessments that have been done by the company contribute to process question answering doctor I'm pretty aware of of its functioning how it smells and the absence of water quality monitoring data and the fact that communities have moved closer and closer to the facility so exposure is much greater than what may have been included in its design I take it that question so next question case services that require the use of radioactive materials how do you value the impact of reactivity in a country that is still undergoing training for managing radioactive spill I'm sorry can you say that one more time doctor trucks on the only facility that you spoke out that's harsh or any services be used on shore base that require the use of radioactive materials anything coming out to that show that uses shorebase services that use radioactive materials and if yes how do you evaluate the impact of your activity when Dan is still undergoing training for how to imagine radioactive's film OK yeah understood understood II I would

like the company to respond to that one there is discussion of radioactive use of radioactive materials in the EIA it's very limited of course but there are very strict procedures in place for the management of those those materials I don't know Steve laws if you want to respond to that briefly I think questioning I believe in some of the model based flowmeters firewall symbol with add the well jumpers which connect the world underlines and they are stored in so let's set locations and I understand that all permits have been put in place for those with the government yes I said this is in particular because we're seeing lots of shorebase activities going into communities like cover down and so on that are servicing the oil industry which I guess you includes the yellowtail project and they include the use of radioactive materials and those are you know the country is now learning how to deal with the radioactive I'm just wondering how you evaluate it in your in your EIA that your waste management plan was great given that dirty limitations in band and so that's the question on the boundary of the yellowtail evaluation another question it wasn't answered that other surpasses the waste product from the multiple water wastewater treatment processes on your FPS so where do they waste products go I'll start on that one that so this time comprehensive waste management plan that I made reference to earlier as well as the cradle to grave study that preface that plan go in to the detail on all of that the waste treatment facilities in cycling facilities that nonhazardous which spousal facilities to which each of those waste streams are in which each others way stranger treated or disclosed so there's there's a lot there's a lot of details to answer that question and it's detailed and specific and how are you bringing any of that waste onto on to shore OK it's probably going to the hot spot the non hazardous waste typically goes there if it can't be recycled OK and you're you're also confirming that has boshes license for hazardous waste and the last question not nonhazardous clear when you said it was getting weak strike it would process always from your society engineered for now non hazardous waste hazardous waste is treated at a hazardous waste treatment facility to render it non hazardous for Urbana regulation OK the other question is if the treatment of hazardous waste Saturday or not as facility does your boundary consider that facilities operations because those facilities are currently trying to get E atea approval in Gannon again they are being placed in residential communities or close to residential communities and you have every single week or day public having to deal with our current EPA saying that those facilities don't require EIA's So what is a liability or ethical responsibility that companies like Exxon Mobil has knowing that its waste is going to be processed in places that are pretty much not even having to do a full EIA and just you should your EIA take that take a larger approach in terms of the boundaries of your operations if you aren't camping we would never require office OC so the last is just vitamins to Shannon after or his company were compensated for any work using the CIA for yellowtail process yeah the answer to that is no because they weren't on the IA team thank you thank you not the trucks miss my girl can you unmute and proceed thanks again yeah so I wanted to come back in because I was a bit bemused that every person who has spoken tonight where they indulged to respond and to set up clarity on their questions but you started moved on from me not that I was seeking to speak for a long time but I did feel that I do feel that it is very important for the this is a legal record of this CIA as you know once you embark on a consultation whether it's legally required or not it forms part of that process I I don't know if it was Mr Todd or Wiley who responded to my my point about not having a baseline for the fisheries as a perceived perceived lack of a baseline and an I I want to say for the record and for the benefit of everyone else who is participating here tonight that a baseline is something you collect before you attempt to do a project or inaction that alters the conditions such that if you were to come later you would then be able to know how the conditions have changed so the response you gave me troubles me because you can be continuously collecting a baseline when there are already activities

going on offshore there affecting those conditions and so I am troubled because we are told that an independent qualified consultant is hired to do this job and if in fact something so elementary can slip by with such clear you are very transparent about it I am now afraid about what else is slipped I slipped by you because you don't seem to understand what is the critical matter here this is not an issue with fisheries about going on and on and doing studies there has to be an immediate and urgent intervention there has to be retrospective studies immediately to begin to look at catch per unit effort on how that has changed from the time you commenced operations back in 2515 and you are the first to speak about building on data so we have to go back to the starting point and try to fill a gap which is not the greatest way to do the job but it's the only way to do the job and I would like to say that for the record I would also like it if following from what Maya asked if you could just describe for everyone here what kind of toxic waste comes to shore and how it is treated and what I have noticed you say repeatedly it's international standard it's by the standards but you don't actually name the standards and when you speak of Guyana you say Guyana's law I would like to draw your attention to the fact that just before July the Environmental Protection Agency of Guyana did the most inexplicable thing just before they started the gas Shorty IE they suspended the 2020 guidelines for environmental impact assessment and by their own record they had gone into setting up these guidelines because the existing ones were woefully lacking for dealing with the oil and gas industry in fact the study done by KNM which was one of the gas studies gas to shore studies said that it flagged it it said it didn't have the regulatory framework to handle a project like that now you are here with another EIA and I'm hearing everything but which international standard exactly are you using I think this is very important if we haven't heard the EPA said that they were assiduously working to consult and get those eyes back up and Kamaraj it is what November so I think you've got something on your plate it's lagging now back to the question of radioactive waste for the record I want to ask this because there are a number of facilities that are opening up and around the country in residential communities that are handling various radioactive substances is Johnny only destroying you to us so we genuinely don't really know what's going on and it would be very helpful if you can explain what that waste is how it is treated to become non hazardous and then moved from wherever your treatment facilities are so that would be very helpful tonight but before going on I want to draw your attention to the Environmental Protection act and to what Maya was saying my thoughts you cannot cut off a piece of your project from any IE the the Environment Protection act it has to be the whole project whole project and so you can't the EIA must consider all shore based activities that make it possible for you to drill for that oil anything that you are doing that is essential essential not auxiliary essential to the functioning of what you're doing offshore is your project and I do think there is a deficiency in the IE right now it doesn't really deal with that adequately so I'll stop there and ask you to explain to all of us what is the toxic waste what is its composition what volumes come out per barrel of oil that you pump and how was it treated in vertical thank you help I'm struggling to figure out how to answer the question because there's a lot of detail behind that last one right so there is a there is a detailed summary of the effluent discharge streams is one of the previous commentors described in great detail that includes the volumes the quantities of both solid waste and half liquid effluent waste the waste management plan talks about the treatment methodologies I don't I don't think you want to read it on this call I got it but it is it is in the waste management plan it is described in the project description what all those streams are but you know we're noting your comment and if you know there's a if there's additional information that would be useful we can we can work with the EPA to provide more clarity on that yeah I can also just very briefly if I can address the baseline question specifically I apologize I thought I answered it but if I didn't I'll answer it now so we

reference to the fish issue in the marine biological issue we had we had two years of baseline data for fish and that was that was collected in two different ways that was collected about with a what we call the my logical fish study which was conducted from 2017 to 2019 so it was two study years it was too dry season too much seasons heating it incorporated the the full the full length of the easy if you will from from the deep water environment in the block all the way to the estuaries OK that and that was done from late like I said from late 2017 to early 2019 sixty two study years and then we also collected the more fisheries related data so not the biological fish work but the fisheries related data also in two cell years and up and that report is included in in the appendix so so we do we do have baseline data for multiple years for for that particular receptor and generally speaking if you look at international best practice it's generally accepted that when you have a an environment that has a strong seasonal component to two to its environment so strong wet season dry season you at least go at one year of dry season that up one year of wet season data if you can get to that's better but the minimum kind of accepted practices at least one year of baseline data and that's that's accepted by wow hydrangea governments and also lending institution so we did you know we did meet that expectation there is a plan analysis on the on the ETA website well and radioactive sources if you don't just put them into the landfill they get treated and they go back to the supplier so we're not putting radioactive sources alright thank you very much miss manga do you have any additional questions or clarifications I see two other hands raised we would want to give you the opportunity before we wrap up extended time any additional concerns you are muted if you're speaking we can't hear you sorry yes I just want to respectfully say to the gentleman who just responded to me that I read those two studies and they were ecological assessments they were not sociological assessments and nowhere is there existing any study in the public domain that is a baseline assessment of dionys fisheries it said that the nurseries the catch where there located the amount of fishermen the value chain there is no such data existing at that is what you called baseline study and why because if those people are now suffering and they are saying they are suffering because you're drilling for oil the absence of a baseline study absolves absorbs you from responsibility that is very critical and it goes back again to speaking to the credibility of the applicant and and the professionals were hired to work for the applicant and what I'm hearing here which concerns me a little bit is you been at this for a while you are repeatedly being hired to do work for Exxon Mobil and yet the requirement is that you should be independent now that creates a relationship of financial relationship that is quite disturbing and it comes back again to the credibility of we're dealing with here I think the EPA needs to step back at least think why seriously about this matter the process issues but I am again saying there is nowhere existing and I'm more than happy to admit that I'm wrong if you provide the proof you provide the study that shows that a baseline assessment of the fisheries industry was done studying fish is not the same as studying fisheries thank you thank you very much miss manga I'm here your submissions will noted miss Fonda where at you now you can unmute an iPhone I'm not sure but I'm not seeing the iPhone anymore so it's not for now followed by Gary and that will be the last two comments for this evening go ahead can you hear me yes I can OK so thank you very much so big side because what is come out just this evening and this one consultation is quite extraordinary and to quote a colleague of ours Jocelyn though considering all of this that many of us here in Guyana citizens concerned citizens with the people who own the oil under resources many of us feel it's zipped gas program is proceeding and Diana is like a Bigfoot pressed against our collective neck and we feel we cannot breathe cannot keep up with this drill baby drill but the endless trend of an EIA not being required yes we know yet OK has one and look at how flawed it is but the trend of no EI is being required for so many of the related oil and gas anchovies projects is unacceptable So what do we

have here now it would seem to me that all that is being said and I know that several guys been in this way there needs to be some kind of all of us stop pause because we have to take stock of what is going on here all of the holes all of the caps all the unanswered questions all of the insufficient and loughnan candles work as people have raised here it is irrefutable last come out here tonight that they are huge deficiencies an insufficiency's injustice one yellowtail project because everybody has said it's the trend it is it is you have to you can't just divorce one thing it is the whole manner and the whole form of how this thing is unrolling in Guyana drill baby drill so why did what did we have said here to be just somebody points no completed baselines about the front essia that's policy in dianno avairy faulty essia many gaps and holes many questions raised right here unanswered insufficient insurance not surance of any kind of the scene be highly questionable oil spill plan I'm very insufficient and it doesn't it does not get any of us any comfort with a mitigation plan for the inevitable oil spill area boots at how much hundreds and they've had in Trinidad and Tobago that is reality check for us the issue that was raised recently independence that disclosure maps that continue to be quite Los on the threat shipment of hazardous waste and God knows what else happened on our precious camera logical residential communities being bombarded hazardous waste and hazardous substances and you active sources facilities being built up and down this place is east Amara West no yeah is required little of where people live hold on we have posted we have one woman West it is unacceptable have Bosch all of us doctor trotz never be able to sustain or maintain or take on all of this dumping a lot of this stuff it's out now where is the here is the evidence is going to be able to have any kind of sustainable pumping human stuff over 20 to 30 years come on it's not sustainable we have no capacity in Guyana currently for any shore based hazardous facility where you active facility we have no capacity for it yet and I and we have no training there's no scientific facility set up to do training from monitor to even to ready us for what is mean mean in the middle of where so many of us are living highly populated residential areas as confident has said since the last century people living there with their homes right here at Houston over 150 years people living and making their homes and enveloping their homes and their families church school playground right in front where this radioactive facility is is being is being rolled out it's a huge liability a huge liability gotta mitrans chopped and asked repeatedly about the boundaries of yellowtail in connection with all of these arms with so many of these matters Simone bangles questions have yet is gone answered Mr Glenn lala kaicho news ask questions have not been answered I heard I heard you I ask questions I hear them answer Janet will conduct work I have things in the chat I don't hear them being answered so I know that people you are making an effort these people erm none of your guy needs another thing none of your guide is I don't understand what's really going on with the way these contracts are are issued but just with that little list and there's so many other things that that can be made to that list Diana needs to take a breath Diana needs to put a pause on this thinking stop let the erm or DBRM do some proper work we can't go forward without baseline can't go forward without the scientifica siloti setup in Guyana concerning radioactivity and hazardous substances we cannot go forward with the way that Diana is rolling out this very bizarre oil and gas drill drill drill plan not to mention that we are now going to be shamefully one of the countries in the world that will be that will be emissions emissions emissions emissions as spoiling not only our country and the beautiful blue Caribbean sea and islands but the planet as a whole it is not acceptable we should be hanging our heads in shame at the moment and we gotta stop antique cars and get the act together and their other alternatives may we see as as as the neuter add sick has said elsewhere other alternatives how we considered other alternatives other than the oil and gas and the way it is being rolled out I don't think so thank you very much thank you very much miss Wanda your concerns as well as your recommendations

I noted miss Janet last word on the platform as it relates to questions or comments so go ahead questions in the chat that's interesting I would like to to so go ahead thank you I want to just reiterate what the anxiety that many of us are people are 76 people on this call of course I know many of them are EPG Ellen DRM and behavior there still many people and many concerns this is a \$9 billion project this is huge it will go on for 20 years or more I think respectfully to have a four hour consultation once is insufficient and I would like erm to tell us maybe not know but to think about it how are you going to deal with all the questions which are outstanding and which is part of your obligation to compile as a result of these public consultations I see no clear the EP app in their Environment Protection act that the compiler erm can arbitrarily limit the number or scope of questions from consultations I need to cover those of us we're here we are this is not our full time job but we're going to try to put our unanswered questions together send them to the press and ask you erm to reply to answer them within 30 days so that we get the kind of assurance we need for nine U.S. dollar bill in U.S. dollar and counting project that will be one in English territory onshore offshore as the assessee rises as the demerara river floods and goes into schamberger and you know we get another another crisis we have to live with that so I would like erm to commit for us that they will answer our questions all these unanswered questions within 30 days thank you thank you Mr Bolton so I will address those enclosing next relates to the EPA from the EPS perspective how we move forward here after Mr Gary you have the platform now you can proceed and then I'll give some closing remarks keyword thank you mother Margarita I wanted to compliment you because you've been very good tonight I also wanted to compliment all of the attendees specially those that have spoken because in all of the consultations that I have been to I've never experienced so many intelligent people with so many intelligent questions with most of them not being answered so I wanted to compliment the responders becausr you have done I mean a world class job of eating the meat of the questions and scooting answers in such a way that quite frankly I as I said at the beginning of my presentation it's it's very disappointing I I could understand that most of you don't have any loyalty to the people of Guyana or the Caribbean even to the point where you can't even pronounce Guyana probably that's very offensive to me but I I respect and appreciate that you have a job to do and doing it in the way that you have been taught to do it by those who have come before you I just appeared for you to remember that you do have a spiritual obligation to be a good human being because we are really not against the extractive sector it's just that the experience we've had is with super steady if any of you would care to come to South Trinidad and to walk through some of the oil fields where many of the European American predecessor extractors have been you would realize what you're heading into in the next 20 years right now I know that many of you are reading about it but actually walking through it and experiencing it first hand is it brings it to light nevertheless I would embrace any of you on the respondents table in the best of weeds and I would embrace you and I do impression I would appreciate if you would consider our comments on our request in the best of lights because none of us here wish any of you ill will regardless of the way you pronounce guy I know I I really am seeing it in jest because it's been a very difficult and long meeting very frustrating for all of us because we all feel that you have not respected our questions even though you know that you haven't you very specifically navigated away from the answers I'm I'm asking you in as a gentleman as I know you are in your best of moments to forget about your training and remember that here we are a citizen population that are accustomed to governments hoodwinking responsibilities in order to subway oil study wealth and much of it as I said earlier it's not we're not paid fair value for volume oftentimes and I'm certain that many people would not appreciate but oftentimes funds appear that don't end up way it should so we feel very deprived and rub the wrong way nevertheless I have to say thank God for quote it

because if not for coving this would not have been broadcast it online and I think it's a good standard that we have been allowed to participate by the zoom meeting so now my questions so today I reflect what Jonathan of is upset that the questions that have been asked the both online and verbally should be properly recorded will they be recorded and produced this part of the EIE as it required intranet low as the fullest question I really am so speak including the IE I think if you did that it would be fair to us because it did occur and it will show it will show to others who may be forced to read the document how how we have been treated and how we feel because you have conducted this meeting and you have given these responses in response to our questions and if it were on paper we could all see it so for the Chinese officials representing the government I would never forgive you if these questions are not included because you are in fact guyanese born and bred and you have friends and relatives who will be impact in affected by this activity and I think it's your duty not to lie but to be fair and it is not unreasonable it is normal practice the questions and answers as as public consultations they included my question regarding hazmat equipment was not responded to at all and that is even before we were made aware of the of the of the very dangerous radioactive materials so the question still stands on his unanswered what treating for locals and locals working in the company and locals working in the local fire and other agencies all to respond and what equipment is being provided for company officials and whether any would be provided for a guy he's not look up emergency response hazmat equipment certainly I am requesting as unsupporting what previous question I had asked that all of the questions at the unanswered and there are many more questions that will arise would need to be properly vented in here in the most diplomatic of meetings and so I'm requesting not even one but two separate convenings it could even be as soon as Sunday it could be Saturday we are all available to work with you and we know that you will be happy to work with us so I'm requesting that we continue this meeting is far from over an I think you would I hope you would consider responding in more detail to many of the questions that we shouldn't be forced to regurgitate it's there on record so I'm asking that the other thing is I wanted to support the comments made by Diana in Jamaica becausr here we are and I knitted centre contingent across 26 and we are proposing to the the G7 and assist us with funding to prevent on to fight against a chip repair for the oncoming slaughter ecological and human slaughter of the climate change and rising sea levels and Yep Guyana is rushing ahead as though it doesn't exist but strategically sending officials to beg for money like purples like beggars and vagrants clothing to beg these nations so I I really hope we in the Caribbean and get a penny throughout into people stayed at the you're breaking up is that is that Simone had mentioned and I apologize that I did not mention lunch seismic surveys have been occuring but many of you may not be aware but we've had several strandings of dolphins and one or two wheels and several leatherbacks another tittles for me upriver on pictures we've it's been going on for a couple of years have continuously been asking my contacts about the seismic surveys are victory but I'm just wondering those on the respondents table are you aware of the impacts of seismic services and if we had enough time I would like to ask you what you were aware of before I see what I'm about to see because it would have been quite a lovely trick nevertheless the response that I'm going to give you because I'm sure you would see that you are not aware of the serious negative impacts of the seismic service cause but in 2017 there are two separate peer reviewed studies produced by separate sets of professors in two different areas of the world both of which should clear clearly that the microorganisms that live in the water I completely decimated within two kilometers of the seismic blast just let that soak in a little bit I didn't see it they said it and it's very good studies so that we're not talking about the impact on mammals and presently the international standards the seismic services you have marine mammal observers at the front of the vessel and if this scared tortured creature jumped

out of the water who showed his head you would tell the blasters to stop wait I'm seeing about when I'm single we'll give it time to run but we still have even though we know that the microorganisms that krill in the water completely decimated and notwithstanding the fact that they do have a swift regeneration reach the fact is that the seismic soubise occur sometimes for weeks or months so the impact is continuous and ongoing and so I'm wondering if the guy needs officials have any consideration or are aware of these studies and if not why not you should be aware and secondly I'm raising the the point that we've been fortunate that we've had these two studies which have been relatively easy to to assess and measure the impact but on the planet we still don't have any studies whatsoever on the impact of the microorganisms that live in the soil and our fishermen here in Trinidad and elsewhere in the world I've continuously complained that the traditional fishing areas which equal banks which are the areas where fish aggregate from number still unknown reason Mr Gary sorry I will way past your time and I would have to ask you to wrap up quickly so just take the next couple of seconds because you still have the opportunity to send your written submissions to the agency so if you can just wrap up rap from that submission yes wrapping up and I'm so happy that you have stop me twice because it's very normal for me but nevertheless I'm asking if you are aware of the impact of seismic surveys on krill and how you have dealt with that as a guyanese regulatory body whether you've been aware honest not why not 'cause if you're not aware I feel so hurt and disappointed because there is a there will be a clear lack of professionalism in the examination of impact and secondly I'm asking that when you become aware of these two studies which will be happy to finish you or they are available online very simple search whether you will ask the question of what is the impact of these seismic surveys only microorganisms that live in this soil or the slow moving creatures like crabs and mollusks that cannot flee from the sound I also wanted to make it make you aware that all the way back in 1994 some 26 years ago study was done in Canada about which of the province eastern province of Nova Scotia had commissioned the the the the the food and agricultural organization to supply them with scientists to conduct these studies of Parkinson is still alive and those studies show that every single Organism freeze at full speed and the street light away from the sound of the seismic service there is still very little studies 26 years after in the world that show the impact of this freeing process but common sense and those with basic biology and understanding of fish behavior no that fish feed and hunt in schools so if this study shows conclusively that the fish disperse in a straight line moving away from a sound for full distance of 50 kilometers outside of the study reach one can easily understand that the schools would be disposed of the 50 kilometers be very far apart and so the defence mechanisms would be weakened in 1995 there was a study that showed that in particular redfish they they hearing follicles which they used to feed because efficient size on the sides and the hunt going forward using sound hearing particles continue to degenerate continuously six months after exposure to the sound so as you can understand you know region particularly in garner many migratory species come from the north all the way from eastern Canada they come down into or just a squad in the winter months so this is not just a guy knees issue this is very much a on Atlantic Ocean issue and so I'm asking you to have the greatest sub sensitivity I did come back to us so we would be allowed to vent or concerns and you would be allowed to gather these concerns and to do a proper examination because we all know that the government of Guyana are going to rubber stamp this project and so we are forced now to depend on your goodwill and responsibility to stare onto Stewart our oceans and other peoples to a sustainable level of continuity alright thank you very much Mr Gary we hear you and all that you have seen husband is being recorded but we have to proceed to to wrap up an I think the the number of persons still on the platform signals the the commitment an on your interest in this in this process and we do wanna thank

you and commend you for that I think the meeting was very instructive it was constructive it was insightful profound very excellent questions pertinent questions critical questions and recommendations and we thank all of you for your submissions and please note that the EPA takes every question every submission that would have been made here this evening I'm seriously So what happens here after yeah your questions your comments on your concerns would be what happened documented the ones our discussed this evening and previous meetings they were physical meetings conducted across the coastal regions so those will be documented and along with other submissions that we will receive so I'm gonna tell you right now that you have until December 12 to make any additional submissions we would have captured those some of the questions all of the the questions and so on in the chat as well but if you want to make additional written submissions which allows for the app allows for is 60 clear. For written submissions to the executive director I believe someone is asking are the where the submission should be sent so they need to be their commencement to be submitted to the executive director the Environmental Protection Agency you can submit those by email EPA epa.org by December my December 12 so once those are submitted yours as long as along with the others as we would have received from the the other discussion meetings in the regions as well as persons who may not have been on the platform this evening but they would have sent in comments or will send in comments as well those will be sent to the developer in their consultants to address and as well as the comments from the environmental assessment board sectors another persons who were were kind of thing review of the EIA I'm so all your recommendations your concerns your comments will be taken on board as it relates to the agencies decision on the on the project so I want to thank you again very much and remember you can still send your written submissions by December 12 so the executive director of the environment so protection agency so if you have end some purses made reference to the links anan research and additional information you can also share that with us when you send when you send in your your comments and when you send in your your questions too if you have additional ones thank you very much ladies and gentlemen for staying with us this late but we do appreciate your interest in your commitment at to this process so I will not join the meeting and you can just double check the date on the six days ago date and I think it may be east not the 12th OK alright alright so it's either the age clarify that for you it's the 15 OK is from the publication alright alright another meeting I'll be for the for the EPA of this this meeting is complementary to our process because the act make provisions for us to make the I have ever done for the public to send written submissions so we've we've had this because we we you know we want to kind of the feedback from you in a more intimate way and I won't be able to make a pronouncement on that at this time I'm not we will take all your comments and your concerns and so on into consideration and then provide that heater I appreciate that but there's so many people on the chat asking for another meeting and I think it's fair to see that we all feel that we have not had proper answers so I'm asking politely please can we have another meeting it's it's very important to us that we are able to interface with the order with a response and that they also have a fear of unity to the responded human we this program response there's no interactive humanity so I'm asking I mean the motor it is on their checked if they would I mean it's so much better to tell us no I I don't think we're in a position to communicate that immediately but if if there would be another meeting you would be truly notified but at this point the agency you will be a price of how your concerns your questions your submissions were would have been addressed by the agency but if they respond but they have a problem I mean they could do it now I hope I mean I know it's difficult for them and very impressive you know we because we are very concerned but I mean it's up to erm if they wish to have another consultation we here legally we have until the reply Friday actual delete forgive me on

that one if it's the a perfect 15 will double check on that but if you can come six days from 9th of October that'll give us the date of the 60 days and we've had other public consultations and this one as well but that doesn't mean we will not consider your request you have to look at it but for now this is where it ends WRM to decide if they wish to but but but I know that you carry a lot of weights and I'm just wondering what is your feeling would you be willing'cause I mean they would take a guideline if you go to them and sister mood I know you're pressing me but I'm going by the act alright what we've done here is discretionary in terms of having this face to face we have stipulates that the public has six days to make any service submissions they feel appropriate these submissions will be considered the consultants they have to address these questions in a revised I yes thank you very much and with that I want to say thanks once more and we will adjourn the meeting have a safe and pleasant rest of your evening by everybody