

ISISHWANKATHELO ESINGESISO ESOBUGCISA

IAfrica Oil SA Corp, iRicoCure (Pty) Ltd neAzinam Limited (inkampani elawulwa ngokupheleleyo nengaphantsi kweEco Atlantic) (Amaqabane eJoint Venture (JV)- ekubhekiselwa kuboo ngokudibeneyo Njengomfaki-sicelo) ngabanini Abanelungelo Lokuhlola leBlock 3B/4B (ER) ngokohambisana Nomthetho Wophuhliso Lwemithombo Yezimbiwa Nepetroleum (No. 28 ka-2002 – MPRDA), njengoko ilungisiwe. Ibhloko yelaysensi igubungela ummandla omalunga ne-17 581 km², kwaye imi phakathi kobubanzi obungama-31°S nama-33°S kwishelfu yelizwekazi kubunzulu bamanzi obuphakathi kwemitha ezingama-300 ukuya kwezingama-2 600.

Indawo yomdla ophambili ikumantla ale bhloko, kodwa oku kunokugubungela indawo esembindini yebhloko. Njengenxalenye yenkqubo yokufaka isicelo Kwelungelo Lokuhlola, Umfaki-sicelo uye wathatha waza wagqiba iprojekthi yokuhlaziya kwakhona egubungela i-2 000 km² eyisabhsethi ye-10 000 km BHP/Shell 3D yeeseti zedatha zenyikima ,egxininisa kakhulu kweyona ndawo isemantla yeBhloko 3B/4B. Ngokusekelwe kuhlalutyo lwedatha ehlaziyiweyo ye-3D, Umfaki-sicelo ngoku uceba ukomba iqula lohloko kwindawo yomdla ophambili ukuze kuqwalaselwe ngokupheleleyo amandla ehydrocarbon yesakhiwo sejiyoloji okanye “ulindelo”, kunye nokukhetha ukugrumba ukuya kufika kumaqula amane awongezelelweyo.

Inkqubo ephelileyo Yovavanyo Lwegalelo Lokusingqongileyo (S&EIA) iyaqhutywa ukuze kukhathshwe iER ekhoyo kuluhlu lwemisebenzi efanele iprojekthi Ekwisaziso Soluhlu lwe-EIA eyile: **Isaziso Soluhlu 2: Umsebenzi 18.** Indawo yommandla wohloko olucetywayo ibonisiwe Umfanekiso .

KWINKCAZELO NAKWISKOPHU SOMSEBENZI OCETYWAYO

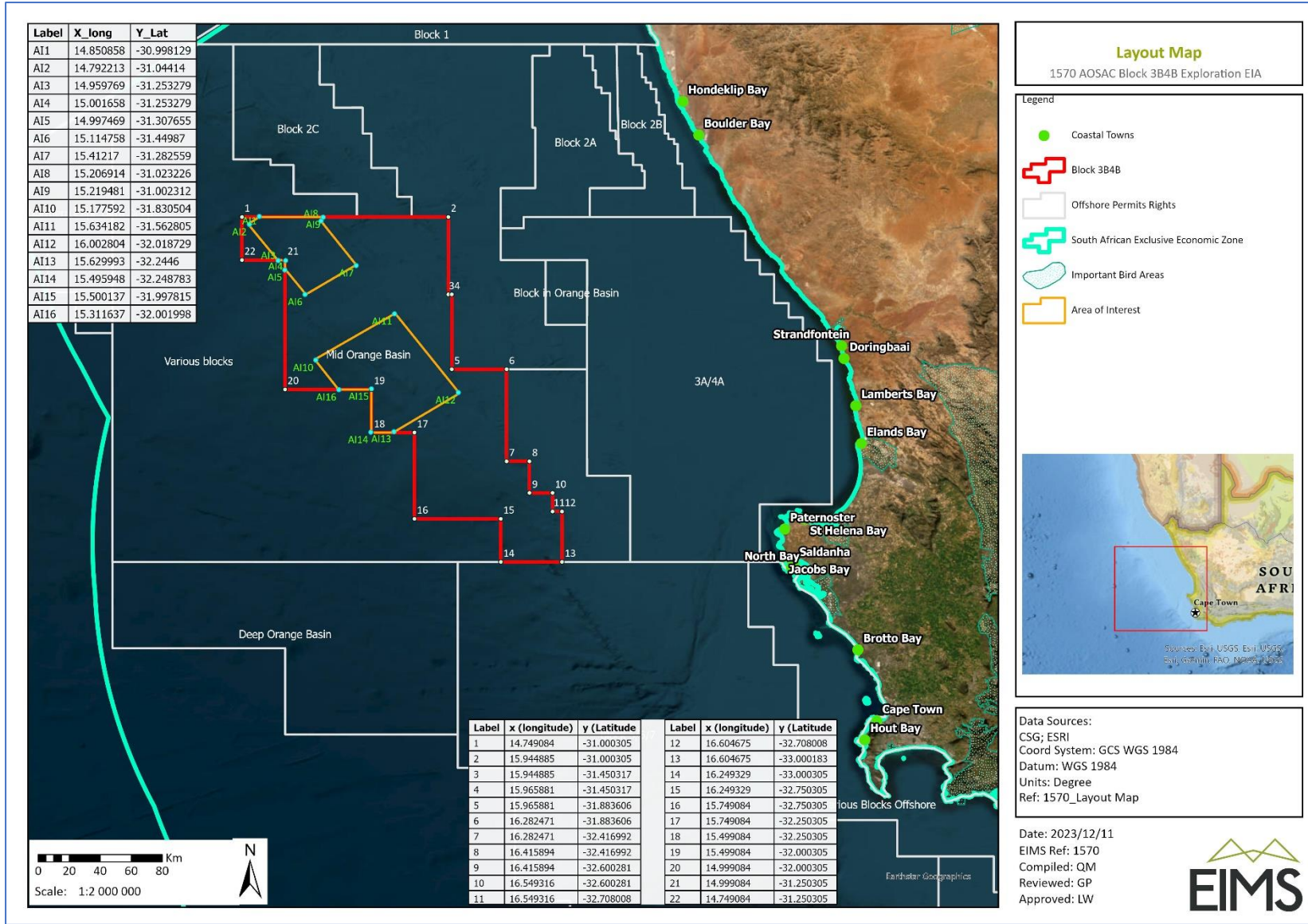
Eli candelo likunika isishwankathelo somsebenzi ocetywayo. Imbali emfutshane yokubandakanyeka komfaki-sicelo kwiBhloko 3B/4B ichaziwe yalandelwa yimisebenzi ecetywayo ekufuneka yenziwe njengenxalenye yesi sicelo.

IZIGQIBO EZITHATHWE NGAPHAMBI KOBHALISO

Ngomhla we-28 kaNovemba 2018, uMphathiswa wanika imvume yokusingqongileyo kwiRicoCure. IRicoCure yafaka isicelo yaza yanikwa isigunyaziso sokusingqongileyo ngokwesiseko sayo seskopu sokugqibela ngenxa yokuba izibophelelo zenkqubo yomsebenzi ezicetywayo yayizezendalo engaphazamisiyo kuba ibandakanya izifundo zedesktophu kuphela. Ngokufanelekileyo, iziphumo zengxelo yokugqibela yokuthatha iskopu ibiyeyokuba bekungekho zimpembelelo zokusingqongileyo okanye zentlalo ezinxulumene nezifundo zedesktophu ezicetywayo ibe ngenxa yoko uvavanyo lwempembelelo yokusingqongileyo nenkqubo yolawulo lokusingqongileyo ibingafuneki. UMphathiswa unike ugunyaziso lokusingqongileyo ngokufanelekileyo ngomhla wama-28 kuNovemba kwaza ngomhla wesi-4 kuDisemba 2018 zonke ii-I&AP ezibhalisiweyo zaziswa ngesi sigqibo njengoko kufunwa phantsi komgaqo 4(2) Wemimiselo Yovavanyo Lwempembelelo Yokusingqongileyo kwaza nge-27 kaMatshi 2019 uMphathiswa wanika iRicoCure ilungelo lokuhlola ekubhekiselwa kulo njenge-12. / 3/339.

Nge-23 Septemba 2022 uMlawuli Jikelele weDMRE uvumele ukuba kuhlaziye ilungelo lokuhlola. Njengenxalenye yesicelo sohlaziyo, abafaki zicelo bacele ukurhoxiswa kwe-20% yesibophelelo sokuyekelela kude kube lixesha apho Imimandla yaseLwandle Ekhuselweyo Engaphakathi kweBhloko 3B/4B igqitywe ngelo xeshana apho ukurhoxiswa okufanelekileyo kuya kwenziwa khona ukuze zingabandakanywa ezo ndawo. Isicelo sokurhoxiswa kwesibophelelo sokuyeka sanikezelwa nguMlawuli Jikelele weDMRE ngomhla wama-23 Septemba 2022 njengenxalenye yokuvumela ukuhlaziya kwelungelo lokuhlola.

Kufuneka kuqatshelwe ukuba iprojekthi echazwe kule Ngxelo ye-EIA, inxulumene kuphela nemisebenzi yokuhlola. Akukho misebenzi inxulumene nemveliso evavanyiweyo njengenxalenye yale Nkqubo Yokuskopha neye-EIA – nayiphi na imisebenzi enxulumene nemveliso iya kuxhomekeka kwisicelo selungelo lemveliso eyahlukileyo, kuquka Nenkqubo Yokuskopha entsha neye-EIA.



Umfanekiso 1: Imephu yendawo.

IISAVEYI ZANGAPHAMBI KOKUGRUMBA

Ngaphambi kokugrumba, kubalulekile ukuqonda iimeko zendawo egrunjwayo nazo naziphi na iingozi ezinokubakho ezinokuchaphazela imisebenzi yokugrumba. Iisaveyi zangaphambi kokugrumba zenzelwa ukuqinisekisa iimeko ezisisiseko nokuchonga naziphi na iingozi eziphantsi kolwandle. Ezi saveyi zinokuquka indibaniselwano yeesaveyi zesona, isampulu zamaqhekeza amatye, isampulu yamanzi nemisebenzi yeROV. Kule projekthi, kucetywa le misebenzi ilandelayo yangaphambi kokugrumba: Iisaveyi Zesona, iEcho Sounders, Iiprofayila Zangaphantsi, Iseabed Sediment Coring, iPiston Coring, neBox Coring.

INDAWO YEQUA NENKQUBO YOKUGRUMBA

Umfaki sicelo uceba ukugrumba ukuya kutsho kumaqula ohlolo amahlanu ngaphakathi kweAOI kwiBhlokho 3B/4B. Ubunzulu obufunekayo bokugrunjwa abukaqinisekiswa okwangoku kwaye kweli nqanaba kucingelwa ubunzulu bomthombo obuyi-3 750 m ngaphantsi komgangatho wolwandle (kumyinge wamanzi ongama-500 - 1700m). Kulindeleke ukuba kuthathe malunga neenyanga ezintathu ukuya kwezine ukugqibezela ukugrumba nokuvavanywa kwequla ngalinye (ngaphandle kokuquka ukuhlanganiswa nokudilizwa). Isicwangciso somfaki sicelo sokugrumba kwixesha elizayo kukuba ukugrumba kunokwenziwa unyaka wonke (o.k.t. kungapheleli nje kwithuba lokuzibonakalisa). Ucwangciso lokugrumba amaqula alukaqinisekiswa okwangoku; nangona kunjalo, umhla wokuqala olindelekileyo wokuqalisa ukugrumba yokota yesithathu ka-2024 (Q3 2024).

AMACANDELO EPROJEKTHI APHAMBILI

OKUNOKUKHETHWA KWIYUNITHI ZOKUGRUMBA

Iindidi ezahlukeneyo zeteknoloji yokugrumba zingasetyenziselwa ukuze kugrunjwe iqula lokuhlola (umzekelo, iibhaji, izixhobo zokutsala, iiyunithi zokugrumba ezingantywiliselwa ngaphantsi kwamanzi (izixhobo) neenqanawa zokugrumba) ngokuxhomekeke, phakathi kwezinye izinto, kubunzulu bamanzi neemeko zokusebenza zaselwandle ezifunyenwe kwindawo yequla. Ngokusekelwe kwiimeko zolwandle ezilindelekileyo, Umfaki sicelo uceba ukusebenzisa iiyunithi zokugrumba ezingantywiliselwa ngaphantsi kwamanzi okanye inqanawa yokugrumba, ezinenkqubo yokuma eguqukayo efanelekele imekobume engqonge amanzi anzulu elwandle. Ukhetho lokugqibela lwerig luya kwenziwa ngokuxhomekeke ekufumanekeni neenkukacha zoyilo lokugqibela.

Iyunithi zokugrumba ezingantywiliselwa ngaphantsi kwamanzi (Umfanekiso, ekunene) ngokusisiseko sisixhobo sokugrumba esibekwe kwisakhiwo esidadayo seepontoni. Xa ikwindawo yequla, kugutyungelwa inxalenye yeeepontoni (okanye zongezwe ubunzima), ngamanzi olwandle, ukuze zintywiliselwe kubunzulu obumiselwe kwangaphambili ngaphantsi komphakamo wolwandle apho intshukumo yamaza incitshisiweyo khona. Oku kunika uzinzo kwivesseli yokugrumba ngokwenza lula imisebenzi yokugrumba.

Inqanawa yokugrumba (Umfanekiso, ekhohlo) ifanelekile kwinqanawa yo kugrumba eyakhiweyo eyenzelwe ukusebenza kwiimeko ezinzulu zamanzi. "Irig" yokugrumba idla ngokubekwa ngasembindini wenqanawa kunye nemisebenzi yenkxaso evela kumacala omabini enqanawa kusetyenziswa iikhreyini ezisisigxina. Iingenelo zenqanawa zokugrumba ngaphezulu kweeyunithi ezininzi ezingaphantsi kwamanzi kukuba inqanawa yokugrumba inomthamo omkhulu wokugcina ibe iyazihambela, ayifuni nakuphi na ukutsalwa nemfuneko yeenqanawa zokubonelela iyehla.



Umfanekiso2: Imizekelo yezixhobo zokugrumba.

IINQANAWA ZENKXASO

Iyunithi yokugrumba iza kuxhaswa / inikwe iinkonzo ziinqanawa ezixhasayo ezingafika kwisithathu, eziya kuthi ziququzelele ukuhanjiswa kwezixhobo, imathiriyeli nenkunkuma phakathi kweyunithi yokugrumba nesiseko solungiselelo lwaselunxwemeni. Inqanawa yokubonelela iya kuhlala ilindile kufuphi neyunithi yokugrumba ukuze ibonelele ngenkxaso yokucima umlilo, ukugcinwa kweoli / ukubuyiswa, ukuhlangula kwimeko engalindelekanga nokubonelela naziphi na izixhobo ezongezelelweyo ezinokuthi zifuneka. Iinqanawa ezixhasayo zingasetyenziselwa ukufuduswa kwezonyango okanye ukudluliselwa kwabasebenzi xa kuyimfuneko.

IHELIKHOPHTA

Ukuthuthwa kwabasebenzi ukuya nokubuya kwiyunithi yokugrumba kuya kubonelelwa ngehelikhoptha ukusuka kwiSikhululo saseSpringbok (uhambo olusisigxina olusuka eKapa) kusetyenziswa ababoneleli basekuhlaleni. Kuqikelelwa ukuba kusenokubakho iinqwelomoya ezine ezibuyayo ngeveki phakathi kweyunithi yokugrumba nehelikhoptha yesiseko senkxaso eSpringbok (o.k.t. iiveki ezili-17 (~iintsuku ezili-120) x 4 = izihlandlo ezingama-68 zohambo ngequla ngalinye). Ezi helikhoptha zingasetyenziselwa ukufuduswa kwezonyango ukusuka kwicandelo lokugrumba ukuya elunxwemeni (emini okanye ebusuku), ukuba oko kuyimfuneko, apho iinqwelomoya zisenokwenzeka ukuba ziye ngqo eKapa.

ISISEKO SAMALUNGISELELO ASELUNXWEMENI

Isiseko esiphambili samalungiselelo aselunxwemeni ngokuqinisekileyo siya kubekwa Kwizibuko laseKapa (ukhetho oluthandwayo), kodwa singabekwa Nakwizibuko laseSaldanha. Isiseko sonxweme siya kunikisa ngendawo yokugcinwa kwemathiriyeli, izinto ezisetyenziswayo nezixhobo eziza kuthunyelwa kwiyunithi yokugrumba kwaye zibuyiselwe kwindawo yokugcina izinto ezithunyelwa kumazwe ngamazwe. Isiseko sonxweme siza kusetyenziselwa neeofisi, iinkonzo zolawulo lwenkunkuma, iinqanawa ezigcina inkunkuma, neenkonzo zokuhambisa / zokucoca inkunkuma.

ISIGABA SOKUHLANGANISA

Isigaba sokuhlanganisa siza kubandakanya izaziso ezifunekayonemvume, ukusekwa kwesiseko saselunxwemeni, ukuqeshwa kwababoneleli benkonzo basekuhlaleni, ukuthengwa nokuthuthwa kwezixhobo zokugrumba nezixhobo ezivela kumazibuko nakwizikhululo zeenqwelomoya ezahlukeneyo, amalungiselelo okuhlala nokuhamba kweyunithi yokugrumba neenqanawa ezixhasayo ukuya kwindawo yokugrumba. Iyunithi yokugrumba neenqanawa zokubonelela zinokuhamba ngokuthe ngqo zisiya kwiqula ukusuka ngaphandle kwamanzi oMzantsi Afrika okanye ukusuka kwizibuko laseMzantsi Afrika, kuxhomekeke ekubeni yeyiphi iyunithi yokugrumba ekhethiweyo, nalapho igqityelwe ukusetyenziswa khona.

Iingcali eziphambili nabasebenzi abanezakhono baza kufika eMzantsi Afrika bekhwele iyunithi yokugrumba baze abanye abasebenzi benkxaso baya kukhweliswa kwiinqwelomoya ukuya eKapa ukuze kutshintshwe abasebenzi. Izinto zokugrumba, ezinjengeecasing, iinxalenye zodaka nezinye izixhobo nezixhobo ziya kungeniswa kwilizwe kwiyunithi yokugrumba ngokwayo okanye zingeniswe ngenqanawa yesikhongozeli ngokuthe ngqo kwisiseko

esiselunxwemeni ukusuka apho iinqanawa zokubonelela ziya kuzidlulisela kwiyunithi yokugrumba. Isamente neekhemikhali zokugrumba ziya kuthengwa ekuhlaleni.

ISIGABA SOKUSEBENZA

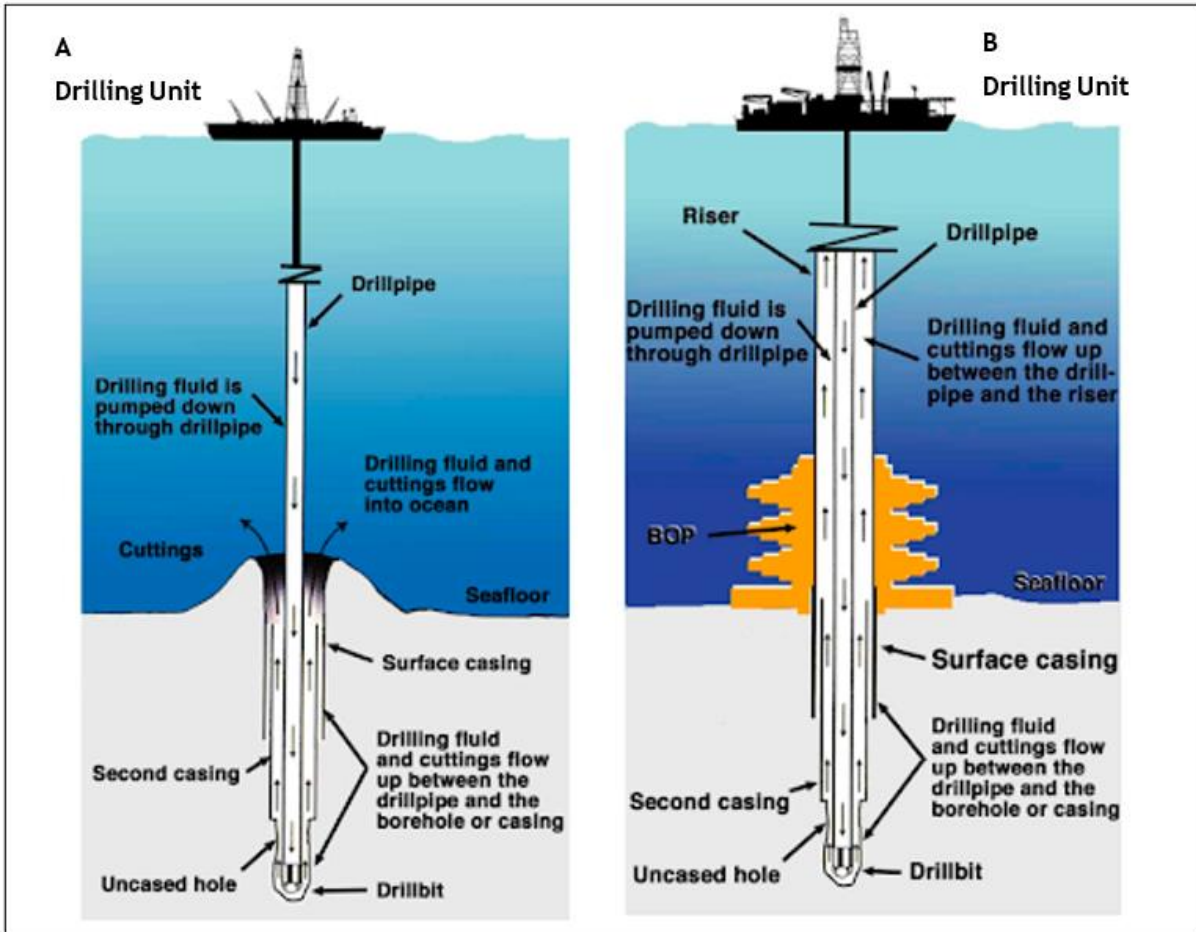
UKHETHO LWESIZA SOKUGQIBELA NESAVEYI EPHANTSI KOLWANDLE

Ukukhethwa kweendawo ezithile zamaqula kuya kusekelwa kuthotho lwemiba, kuquka uhlalutyo olungozelelweyo lwedatha yenyikima ye-3D kunye nokutolikwa kwesaveyi yangaphambi kokugrunjwa nokujoliswe kuko ngokwejiyoloji. ISithuthi Esisetyenziswa Bucala (ROV) siza kusetyenziselwa ukugqibezela indawo yequla esekwe phakathi kwezinye izinto kubukho bayo nayiphi na imiqobo ephantsi kolwandle okanye ubukho bazo naziphi na iimpawu ezinovakalelo ezinokubonakala.

UMSEBENZI WOKUGRUNJWA KWEQELA

Ukuze kwenziwe iqula, kugrunjwa umngxuma kumgangatho wolwandle kusetyenziswa into yokugrumba encanyathiselwe kumtya wento yokugrumba ejikelezayo. Into yokugrumba iqhekeza ilitye libe zizinto ezincinci ezibizwa ngokuba "ngamaqhekeza". Emva kokuba umngxuma ugrunjiwe, amacandelo ombhobho wentsimbi obizwa ngokuba zicasing afakwe emngxunyeni kwaye asamentwe ngokusisigxina. Ilicasing zenza ukuba isakhiwo singagungqi kumngxuma omtsha ogrunjiweyo zize zihlukanise iindawo ezinokuba yingozi zoxinzelelo oluphezulu ukusuka kwenye nangaphezulu. Ngenxa yezindawo zohlukaniswe ngokukhuselekileyo, iqula liza kugrunjwa nzulu ngento encinci yokugrumba lize lifakwe kwisingxobo ngecasings encinci. Kule projekthi, kuqikelelwa ukuba kuya kubakho iiseti ezintlanu zobukhulu bemngxuma emincinci elandelayo ezombiweyo ngaphakathi kwenye, nganye ifakwe isamente ngecasings, ngaphandle kwesigaba sokugqibela esiya kuhlala singumngxuma ovulekileyo.

Ukugrumba kwenziwa ngokwezigaba ezibini, ezizezi, ukugrumba ngaphandle kombhobho wokutsala nokugrumba ngombhobho wokutsala. (Umfanekiso). Uyilo lwequla ekugqibeleni luxhomekeke kwizinto ezinjengobunzulu obucwangcisiweyo, uxinzelelo olulindelekileyo lokuvuleka nendawo ekulindelwe ukuba kwakheke ihydrocarbon. Iindidi ezininzi zezinto ezingamanzi zokugrumba ezineendlela noxinaniso olwahlukeneyo ziya kusetyenziswa kwimisebenzi yokugrumba. Oku kunokwahluka kancinane ngokuxhomekeke kukhetho lwekontraka kwaye inokuguqulwa ukuze ihambelane neemfuno zokusebenza.



Umfanekiso 3: Izigaba zokugrumba: (a) Ukugrumba Ngaphandle Kombhobho Wokutsala; kunye (b) Nokugrumba Ngombhobho Wokutsala

Ukufakwa kwesamente yinqubo yokumpompa udaka lwesamente ngombhobho wokugrumba / okanye istinga sesamente ezantsi komngxuma nokubuyisela kwindawo ephakathi yecasing nodonga lwequla (iannulus). Isamente igcwalisa iannulus phakathi kwecasing nomngxuma ogrundjiweyo ukuze kwenziwe itywina elomelele ngokugqithiseleyo, ekuphantse kungangeneki kulo, ngaloo ndlela ikhusela ngokusisigxina icasing ekulo ndawo. Ukwahlula isamente kwinto engamanzi yokugrumba ukuze kuncitshiswe ukungcoliseka kwesamente kusetyenziswa iplagi yesamente kunye/okanye ispacers fluids. Iplagi ityhalwa yinto engamanzi yokugrumba ukuqinisekisa ukuba isamente ibekwe ngaphandle kwecasing egcwalisa indawo yeannular phakathi kwecasing nodonga lomngxuma. Emva kokuba isamente isetiwe, icandelo elifutshane lomngxuma omtsha liyagrunjwa, emva koko uvavanyo loxinzelelo luyenziwa ukuze kuqinisekise ukuba isamente nokubunjwa kuyakwazi ukumelana noxinzelelo oluphezulu lwamanzi avela kwizinto ezinzulu ezibekho.

UKUGCINA INGXELO NOKUVAVANYWA KWEQULA

Bakuba bufikelelwe ubunzulu obufunekayo, kuza kugcinwa iingxelo zequla ibe lingavavanywa ngokuxhomekeke kwiziphumo zokugrumba. Ukugcinwa kweengxelo zequla kuqok ukuvavanywa kweempawu ezibonakalayo neekhemikhali zamaty e angaphantsi komhlaba, neeminerali zecandelo lawo, kuquka amanzi, ioyile negesi ukuqinisekisa ubukho behydrocarbons neempawu zepetrophysical zamaty e. Kwenziwa ngexesha lomsebenzi wokugrumba kusetyenziswa iWireline Logging okanye Ukugcina Ingxelo Ngoxa Kugrunjwa (LWD) ukugcina idatha engundoqo equleni. Inkcazelo evela kwizigodo zobunjineli nezemveliso, nokugawulwa ngodaka, nazo zingasetyenziswa.

I-Vertical Seismic Profile (VSP) sisixhobo sovavanyo esisetyenziselwa ukuvelisa umfanekiso wentlekele we-high-resolution ye-geology kwindawo ekufuphi yequla nokumisela isantya esichanekileyo sokwakheka. Imifanekiso yeVSP isetyenziselwa ukulungelelaniswa nemifanekiso yenyikima yomphezulu nokucwangciswa kwangaphambili kwento yokugrumba ngexesha lokugrumba. IVSP isebenzisa uluhlu oluncinci lweairgun noxinzelelo lompu we-

450 nge-intshi yesikwere (psi), esetyenziswa kwiyunithi yokugrumba kubunzulu obuphakathi kwe-7 m kunye ne-10 m. Ngexesha lemisebenzi yeVSP, abamkeli abane ukuya kwabahlanu babekwe kwicandelo lequla kwaye uluhlu lwemipu yomoya ikhutshwa malunga nezihlandlo ezihlanu ngezithuba zemizuzwana engama-20 kwisikhululo ngasinye. Izandi zokubetha kwesandi eziveliswayo zibonakaliswa kumhlaba wolwandle kwaye zirekhodwa ngabamkeli ukuvelisa iprofayile ecaleni kwecandelo lequla elingama-60 ukuya kuma-75 m. Le nkqubo iphindwa kwizikhululo ezahlukeneyo equleni kwaye ingathatha ukuya kwiiyure ezintandathu ukugqiba malunga neeshoti ezili-125, ngokuxhomekeke kubunzulu bequla nenani lezikhululo ezifakwe kwiprofayili.

Uvavanyo lokuqukuqela kwequla lwenzelwa ukufumanisa amandla oqoqosho okufunyanwa phambi kokuba iqula lishiywe okanye linqunyanyiswe. Uvavanyo olunye luya kwenziwa ngokuhlola kakuhle ukuba uvimba ufunyenwe ibe uyokufika kwiimvavanyo ezimbini kwiqula ngalinye leapreyizali. Uvavanyo ngalunye luya kuthatha ukuya kutsho kwiintsuku ezisi-7 ukuze ligqitywe (iintsuku ezi-5 zokwakhiwa neentsuku ezi-2 zokuqukuqela nokugqabhuka). Ukuze kuvavanywe ukuqukuqela kwequla, kuza kutshiswa iihydrocarbon kwindawo yequla. Iflare esebenza ngokufanelekileyo isetyenziselwa ukwandisa ukutsha kwehydrocarbon. Iintloko zokutshisa ezinomsebenzi opezulu wokutshisa phantsi kweemeko ezininzi ziya kusetyenziswa.

Umthamo wehydrocarbon (eziza kutshiswa) namanzi anokubakho avelisiweyo aphuma kwidama anokuveliswa ngexesha lokuvavanywa kwequla akanakuqikelelwa ngokuthembekileyo ngenxa yokwahluka kokwakheka kwegesi, amazinga okuhamba namanzi. Izitshisi zenzelwa ukuqinisekisa ukuba izinto ezikhutshwayo zigcinwa zincinci. Umthamo oqikelelweyo wehydrocarbon oza kutshiswa awunakuqikelelwa ngokuchaneka okukhulu kuba ezona mfuno zovavanyo zinokumiselwa kuphela emva kokungena kwedama elithwele ihydrocarbon. Nangona kunjalo, kuqikelelwa ukuba ioyile ye-10 000 bbl inokuvuthwa ngovavanyo ngalunye, okt ukuya kuthi ga kwi-20 000 bbl kwiimvavanyo ezimbini ezinxulumene nequla leapreyizali. Ukuba amanzi aveliswayo aveliswa ngexesha lokuvavanywa kwequla, aya kwahlulwa kwiihydrocarbon.

UKUTYWINWA NOKUPLAGWA KWEQULA

Injongo yokutywinwa kwequla nokufakwa kweplagi kukwahlula izinto phakathi kunye nehydrocarbon. Ukutywinwa kwequla nokufakwa kweplagi kujolise ekubuyiseleni intembeko kukwakheka okwenziwe liqula eligrunjiweyo. Ubuchule obuphambili obusetyenziswayo ukuthintela ukuqukuqela phakathi kolwakhiwo olungenekayo kukuplaga iqula ngesamente, ngaloo ndlela kubangela umqobo ongangenekiyo phakathi kweendawo ezimbini.

Kwakuba nje kugqityiwe ukugrunjwa nokugcinwa kwengxelo, amaqula ohlolo aza kвалwa ngeplagi zesamente, zivavanywe ukuba zigqibelele na lize liyekwe ngokwezona nkqubo zingcono zamazwe ngamazwe. Iiplagi zesamente ziza kusetelwa ukuba zibe zodwa ezithwele ihydrocarbon kunye / okanye iindawo ezivunwayoibe ukufakwa kwesamente kwizithuba ezinemingxuma (umzekelo, kwimisebenzi yokugcinwa kweengxelo zequla) kuza kuvavanywa apho kunokwenzeka ukuba kubekho ukuqukuqela okungafunekiyo. Ezi plagi zesamente zibekwe ngokwezigaba ukusuka ezantsi ukuya phezulu. Kuya kufakelwa iiplagi zesamente ezintathu: o.k.t ibe nye nganye ukwahlulwa kwedama elinzulu nedama eliphambili; nesithathu njengesithintelo sesibini kwidama elilona liphambili.

Ukomelela kweplagi zesamente kunokuvavanywa ngeendlela eziliqela. Iiplagi zesamente ziza kuvavanywa (ukuze kuqinisekise isikhundla seplagi) nobunzima obuvavanyiweyo, kwaye ukuba kunokwenzeka kwenziwe novavanyo oluphozithivu loxinzelelo (ukuqinisekisa itywina) kunye / okanye uvavanyo olunegethivi loxinzelelo. Ukongeza, uvavanyo lokuqukuqela lunokwenziwa ukuze kuqinisekise ukutywinwa ngeplagi. Lakuba nje iqula lifakwe iplagi, amanzi olwandle aza kususwa ngaphambi kokuba kudiskhonekthwe umbhobho wokutsala amanzi neBOP.

ISIGABA SOKUDILIZA

Emva kokuba amaqula ohlolo avaliwe, avavanywe ukomelela kwawo aze ayekwa, anokushiya kunye nesixhobo somthombo oshiywe kwindawo esezantsi kolwandle ngokuhambelana nezenzo zamashishini kwihlabathi liphela. Apho kufanelekileyo izixhobo zokhuselo 'ezinokurhuqwa' zizotyenziswa kumaqula alahliweyo. Injongo kukususa amaqula asuka emgangathweni wolwandle kumaqula angenamveliso. Indlela yokuhlola ingozi iya kuqwalasela izinto ezifana nobunzulu bamanzi kunye nokusetyenziswa kwendawo ngamanye amacandelo (umzekelo,

ukuloba). Kubalulekile ukuqaphela ukuba nokuba intloko yomthombo kunye nesixhobo sokukhusela esibanjwayo sigciniwe, umthombo ngokwawo uya kusalwa.

Iigeyiji zokubek'esweni ezifakelweyo kwisixhobo se-wellhead ukwenzela ukuhlola, ukuvavanya, okanye amaqula emveliso anokuhlala kwimithombo yamanzi ukuze uMfaki-sicelo abe nokukhetha ukufikelela kunye nokubeka iliso kwisixhobo se-wellhead ngexesha lovavanyo lwexesha elizayo okanye imisebenzi yokuvelisa.

Ngaphandle kwezixhobo ezikhuselayo ezinokulotywa ngaphezulu kwemithombo eshiyiweyo kunye nezinto ezidityanisiweyo zokugrumba ezifakwe elwandle, akukho zintsalela zibonakalayo zomsebenzi wokomba eziya kushiyeke emgangathweni wolwandle. Uvavanyo lokugqibela lwesaveyi yokucocwa luya kwenziwa kusetyenziswa iROV. Iyunithi yokomba kunye neenqanawa ezixhasayo ziya kususwa kwindawo yelayisensi ye-offshore kwaye mhlawumbi ihlanganise kwindawo yokomba ilandelayo okanye ifudukele kwizibuko okanye kwisiseko sommandla ukulungiselela ukulungiswa, ukulungiswa okanye ukunikezelwa kwakhona.

IZINTO EZIVUZAYO, INKUKUMA NEZINTO EZIPHUMAYO

Imisebenzi yokugrumba ecetywayo (kuquka ukuhlanganisa nokudiliza) iza kuphumela ekuvuzeni kwezinto ezahlukeneyo emanzini, ukuveliswa kwenkunkuma nakwizinto eziphumayo. Zonke iinqanawa ziya kuba nezixhobo, iinqubo neeprothokholi zazo ukuze kuthintelwe ukungcoliswa yioli, isuweyiji nenkunkuma ngokuhambelana neemfuno Zengqungquthela Yokuthintela Ungcoliseko oluvela Kwiinqanawa, 1973/1978 (MARPOL). Nakuphi na ukuvuza okunxulumene nochitheka kweoyile kuza kulawulwa Sisicwangciso Sokuchitheka Nokungcolisa Kweoli (OSCP). Iindawo zokulahla inkunkuma zaselunxwemeni ezinelayisensi neendawo zolawulo lwenkunkuma ziya kuchongwa, ziqinisekiseke zize zivunywe ngaphambi kokuba kuqaliswe umsebenzi wokugrumba.

Le miba ilandelayo nayo iye yachongwa yaze yaqwalaselwa Kuvavanyo Lwegalelo Lokusingqongileyo:

- Amaqhekeza Nodaka Lokugrumba
- Ihydraulic Fluid yeBOP
- Amanzi Avelisiweyo
- Iindawo Zemithshini Yenqanawa (Bilge Water)
- Idekhi Yamanzi Amdaka
- Ibrine Eveliswe kwiOnboard Desalination Plant
- Ugutyulo lwamanzi amdaka Namanzi Angwevu
- Inkunkuma Yokutya
- Amanzi Ongezwe Ubunzima
- Izicoci
- Ukukhutshwa Kwengxolo
- Ukukhutshwa Kokukhanya
- Ukukhutshwa Kobushushu

IZEHLO EZINGACWANGCISWANGA -UKUVUTHUZA KWEQULA

Esona sisongelo sokusingqongileyo esisuka kwimisebenzi yokugrumba ekude nonxweme ngumngcipheko wokuchitheka okukhulu kweoyile okwenzeka ngenxa yokuvuthuza okanye ukungalawuleki kwequla. Ukuvuthuza kukukhutshwa okungalawulwayo kweoli kunye / okanye igesi yendalo evela equleni emva kokuba iinqubo zokulawula uxinzelelo ziye zahluleka.

I-oyile ekhutshelweyo kwimo engqongileyo yaselwandle inokuba nefuthe elibi ngoko nangoko kumgangatho wamanzi, kunye neziphumo eziyityhefu ezinokuthi zibe nesiphumo sokufa (umzekelo, ukufuthaniselwa nokutyhefwa) kwezilwanyana zaselwandle okanye okuchaphazela impilo yezilwanyana (umzekelo, umonakalo

wokuphefumla). Ukuba ukuchitheka kufikelela elunxwemeni, kunokukhokelela ekutshatyalalisweni kweendawo zokuhlala eziselunxwemeni ezinovakalelo (umzekelo ubonisa ukuba xa kuthe kwakhutshwa ngempazamo umbane we-oyile unokuchitha umgama obalulekileyo ukusuka elunxwemeni kwaye ungafikeleli elunxwemeni).

Ioyile echithekileyo kwimekobume yaselwandle inokuba nefuthe elibi ngoko nangoko kumgangatho wamanzi, neziphumo eziyityhefu ezinokuthi zibangele ukufa (umzekelo, ukufuthaniseleka nokutyhefeka) kwezilwanyana zaselwandle okanye kuchaphazele impilo yezilwanyana (umzekelo, umonakalo wokuphefumla). Ukuba ukuchitheka kufikelela elunxwemeni, kunokukhokelela ekucuthekeni kweendawo zokuhlala eziselunxwemeni ezinochuku.

Ngokulandelelana amaqula angama-47 agrunjiwe kwimo engqongileyo yonxweme oluseWest Coast ukuza kuthi ga ngoku kwaye akukho kuvuthuzeka kwamaqula okurekhodiweyo. Idatha yehlabathi egcinwe yiRejista yeLloyds ibonisa ukuba ukuphindaphinda kokuvuthuzeka kwequla lokuhlola oluqhelekileyo bekulandelelana ngolu hlobo 1.43×10^{-4} (0.000143) ngokugrunjwa kwequla ngalinye. Nangona amathuba okuchitheka okukhulu okunokwenzeka emancinci kakhulu, impembelelo ifuna ukuqwalaselwa njengoko inokuba neziphumo ezibi kwimekobume yaselwandle.

Ukuze kujongwane nolawulo lwemingcipheko eyayanyaniswa nemeko engalindelekanga yokuvuthuzeka kweqela, la manyathelo alandelayo olawulo lweprojekthi aza kufuneka athathwe ngexesha lemiseteyanzana yokuhlola ukuze kuthintelwe okanye kusatyelwe kwisiganeko esingacetywanga sokuvuthuzeka kwequla:

- Ukuthotyelwa kweCOLREGS (Ingqungquthela ejongene nokhuseleko elwandle, ingakumbi ukunciphisa umngcipheko wokungqubana elwandle) neSOLAS (Ingqungquthela eqinisekisa ukuba iinqanawa ziyayithobela eyona migangatho iphantsi yokhuseleko).
- Iizowuni zokhuseleko ezingama-500 m ziya kunyanzeliswa malunga neyunithi yokugrumba apho ukuloba nezinye iinqanawa zingabandakanyekiyo khona.
- Isicwangciso Sequbuliso Sokungcolisa Kweoyile (SOPEP) siza kuphuhliswa. Injongo yeSOPEP kukuncedisa abasebenzi ekujonganeni nokukhutshwa kwe-oyile ngokungalindelekanga, ukuqalisa amanyathelo ayimfuneko okumisa okanye ukunciphisa ukuvuza, nokunciphisa iziphumo zako kwimekobume yaselwandle.
- Njengento eqhele ukwenzeka, Isicwangciso Sokusabela Kwimeko Yongxamiseko (ERP) Nesicwangciso Sokunciphisa Ukuchitheka Nongcoliso Lweoyile (OSCP) ziza kulungiselelwa zize zifumaneka ngawo onke amaxesha ngexesha lomsebenzi wokugrumba.
- Iinqanawa zeprojekthi ziya kuxhotyiswa ngesiqulatho esifanelekileyo sokuchitheka nezixhobo zokucoca, umz. iibhumu, iidisperant nezixhobo ezifunxayo. Bonke abasebenzi beenqanawa ezifanelekileyo baza kuqeqeshelwa ukusebenzisa izixhobo zokucoca ukuchitheka nemisebenzi yesiqhelo yokucoca ukuchitheka.
- Amathuba okuba kuvuthuzeke iqula aphinda ancitshiswe ngakumbi ngofakelo lwesithinteli sokuvuthela (BOP) kwiqula ekuqaleni kwenqanaba lokugrumba elinombhobho wokutsala. I-BOP yinqubo yolawulo lwesibini, equlethe istack yeendlela ezizimeleyo zokunqunyulwa, ukuqinisekisa ukuphindaphinda kwimeko yokungaphumeleli. IBOP yenzelwe ukuvala iqula ukuthintela ukuhamba okungalawulekiyo kwehydrocarbon ukusuka kwireservoir. Ukuvuthuzeka kwenzeka kwimeko engalindelekanga kakhulu yezi nkqubo zolawulo loxinzelelo.
- Ukuba iBOP ayivali ngempumelelo ukuphuma kwamanzi equleni, isixhobo sokugrumba siza kudiskhoneka kwaye sihambe sisuke kwindawo yomthombo ngelixa abasebenzi behlanganisa inkqubo yokuvulwa. Inkqubo yecapping iza kuthotywa kwindawo ukusuka kwibarge yayo yokuxhasa ize ikhonekthwe phezulu kweBOP ukumisa ukuhamba kweoyile okanye igesi.
- Inkcazelo enikezelwe Ngumfaki sicelo Kuphononongo Lwemodeli Yokuchitheka Kweoyile kucingelwa ukuba isibonelelo siya kuba necondensate kuphela. Ngaloo ndlela, ukuba ihydrocarbon enzima kakhulu inokufunyanwa ngexesha lemisebenzi yokugrumba (umzekelo, ioyile ekrwada), kuza kufuneka ukuba

ukuchitheka kweoyile ehambelanayo imodeli novavanyo lomngcipheko oluhambelanayo kufuneka luhlaziyiwe. Oku kuza kufuna uhlaziyo lweOSCP namanye amaxwebhu afanelekileyo kulo mba.

- Ukusabela Ekuchithekeni Kweoli (OSRL), indibaniselwano yokusabela ekuchithekeni kweoyile kwihlabathi jikelele exhaswa ngemali ziinkampani zeoyile namandla ezingaphezulu kwezili-160, inesiseko eSaldanha Bay kunye nesinye isiseko eAberdeen, esinezixhobo zokuvala kakuhle ezenzelwe ukuvala- iqula elingalawulwayo lolwandle. ISaldanha esekwe kwicapping stack iyafumaneka kwiinkampani zeoyile negesi kulo lonke ishishini kwaye ibonelela ngentsabelo kwiziganeko ezikhawulezayo zolwandle kwihlabathi liphela. Izixhobo zigcinwa zilungele ukuhlanganiswa ngoko nangoko nokuya phambili ngolwandle kunye/okanye ngomoya xa kukho isiganeko. Umqhubi wasekunene kufuneka abe lilungu leOSRL. Oku kuya kulinciphisa kakhulu ixesha lokuchitheka. Onke amaqula kufuneka ayilwe ngendlela yokuba avumele icapping.
- Olunye ulawulo lweeprojekthi luquka ukulungiswa okuphunyezwa kweSOPEP Nesciwangciso Sokulawula Ungcoliso Lwequla (WCCP).

ULUHLU LWEPOLISI NOMTHETHO

Isishwankathelo somthetho olawulayo ochongiweyo onxulumene neprojekthi ecetywayo unikwe ngezantsi:



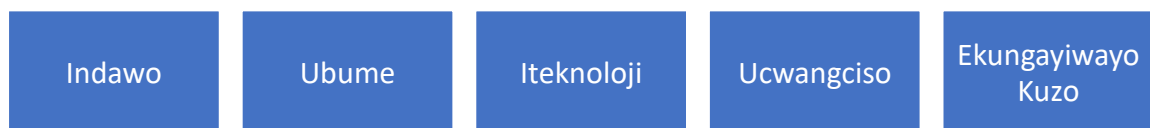
IMFUNO NOKUTHANDEKA KOMSEBENZI OCETYWAYO

Imfuno yeoyile ekrwada eMzantsi Afrika inyuke ngokuthe chu ukuya kwimiphanda engama-600 000/ ngosuku. Uninzi lweoyile ekrwada esetyenziswa eMzantsi Afrika ithengwa kumazwe angaphandle, njengoko imveliso yeoli negesi yalapha iphantsi, nto leyo enegalelo kwintsilelo yeakhawunti. Ukuveliswa kweoyile negesi eyongezelekileyo eMzantsi Afrika kulindeleke ukuba kube negalelo kwintsilelo esezantsi yeakhawunti, kumaxabiso azinzileyo, ekudaleni imisebenzi namashishini amatsha kumacandelo okubonelela ngeoyile negesi amakhulu namancinci, nokuguquguquka okuhambelana nokungazinzi kwimimandla emikhulu evelisa ioyile. Icandelo leenkonziso kwishishini leoyile negesi lisakhasa kwicala elingasentla kwaye oku kunokubonelela ngamathuba otyalomali kweli candelo.

Iprojekthi ecetywayo ijolise ekuchongeni izibonelelo zeoli negesi kwaye ayibandakanyi nayiphi na imisebenzi yokuvelisa. Ngoko ke, ukuchongwa novavanyo lweempembelelo lulinganiselwe kwimisebenzi enxulumene nohlolo lweoyile negesi.

EZINYE IINDLELA ZEPROJEKTHI

Kufuneka kuqatshelwe ukuba uhlolo lweoyile negesi ngaphakathi kweBhlokho 3B/4B kude nonxweme lommandla luya kwenziwa ngokugrunjwa kwemingxuma yokuhlola egxile ikakhulu kumacandelo asemantla nasembindini webhlokho yelayisensi (o.k.t. Imimandla Enikisa Umdla- AOI). Kuye kwaqwalaselwa ezi ndlela zizezinye zilandelayo:



UKUBANDAKANYEKA KWABACHAPHAZELEKAYO

Inkqubo Yokuthatha Inxaxheba Koluntu (PPP) yinto efuneka kwimithetho eliqela yoMzantsi Afrika kwaye ijolise ekuqinisekiseni ukuba onke Amaqela Anomdla Nachaphazelekayo (I&APs) kuyathethwana nawo, ayabandakanywa zize izimvo zawo ziqwalaselwe, ibe kuqukwa nerekhodi kwiingxelo ezithunyelwa Kwabasemagunyeni. Inkqubo iqinisekisa ukuba bonke abachaphazelekayo bayaliniwa eli thuba njengenxalenye yenkqubo eace kumntu wonke evumela uphononongo lokwenene nolubanzi kokusingqongileyo.

INDLELA EQHELEKILEYO YOKUTHATHA INXAXHEBA KOLUNTU

Iinkcukacha zendlela neenkqubo ezithathiweyo zokuthathwa kwenxaxheba luluntu okuzayo zichazwe apha Kwitheiyibhule .

Kwitheiyibhule 1: Amathuba Aza Nokuthatha Inxaxheba Koluntu

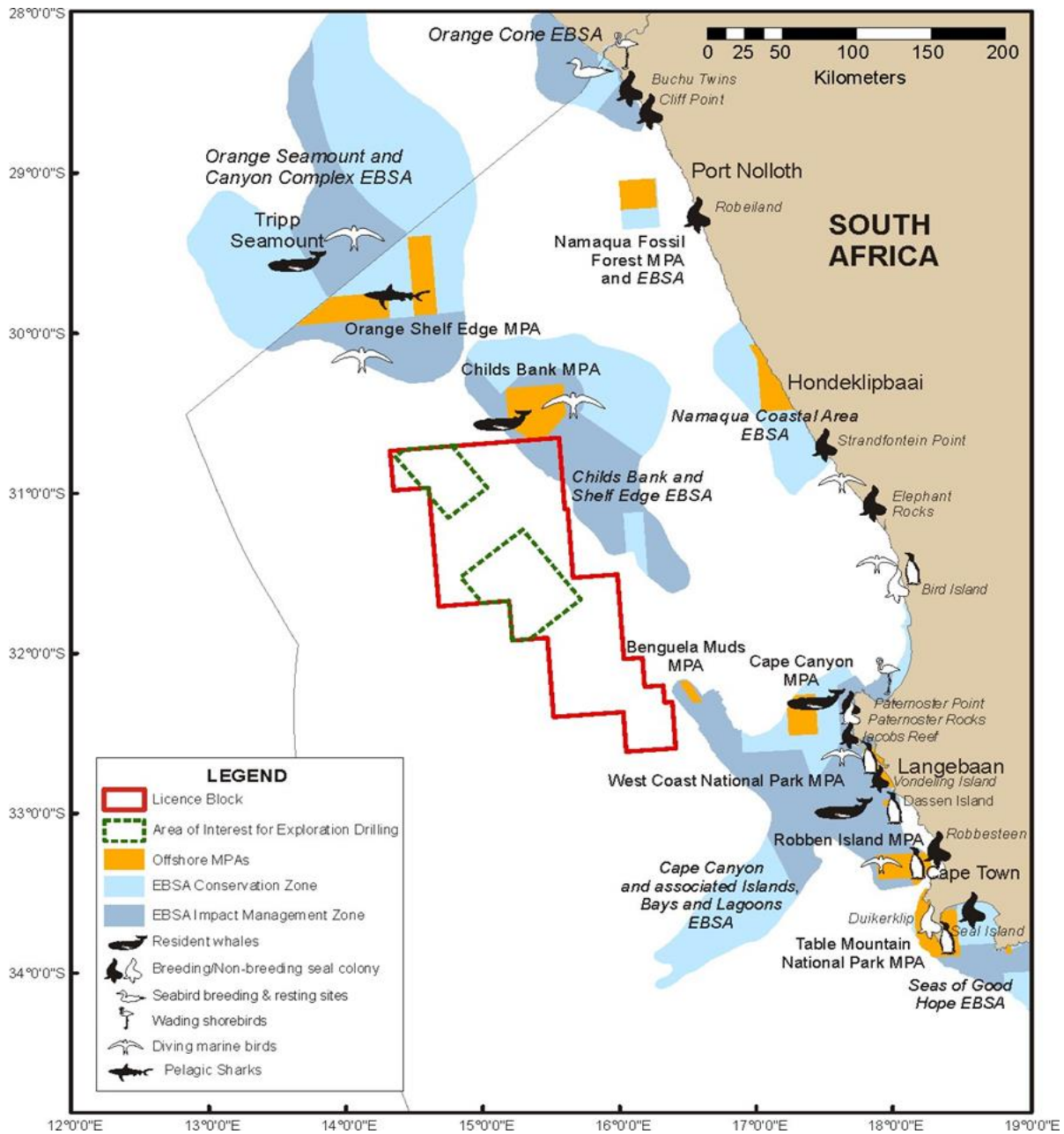
Isenzo	Inkcazelo	Upapasho/Indawo	Umhla
Ukufumaneka kwe-EIAR Elungisiweyo	Ukubekwa kweDEIAR ukuze Ihlolwe Luluntu	I-DEIAR ibekwe kumathala eencwadi ahlukeneyo nakwiindawo ezikunxweme olusentshona.	8 kuTshazimpunzi
	Iintsuku Ezivulekele Uluntu Nentlanganiso Yoluntu Eyenziwa Usekhaya	Iintsuku ezininzi ezivulekele uluntu ezibanjelwe kwiindawo eziphambili kunxweme olusentshona.	15 – 20 kuTshazimpunzi 2024

IIMPAWU ZOKUSINGQONGILEYO NOKUSINGQONGILEYO OKUSISISEKO

UKUFUNDA NGEEMEKO EZINGQONGILEYO ZASELWANDLE

Ezona zinto zithe-ethe kwimisebenzi ecetywayo yokugrumba zezi:

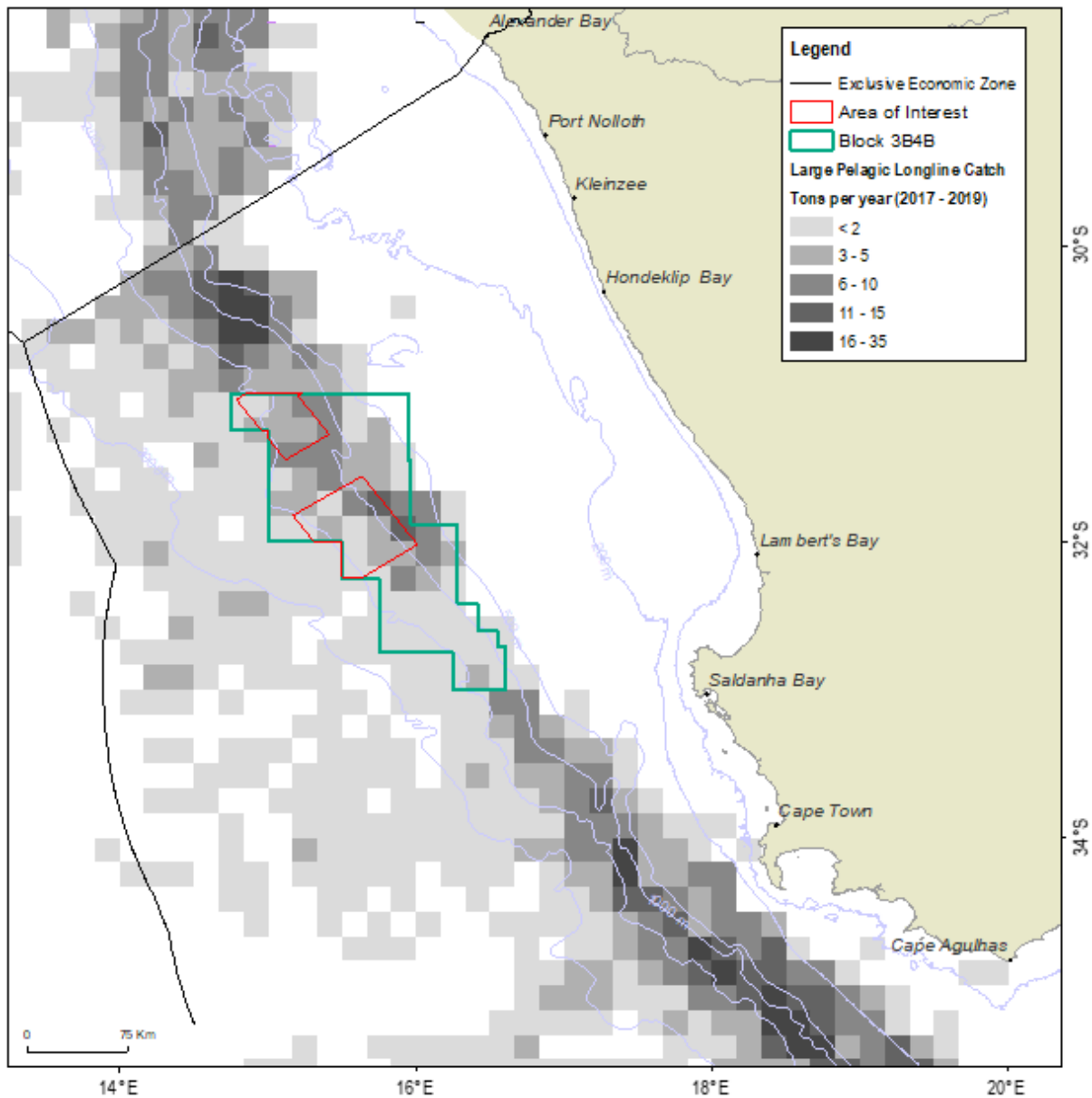
- IChilds Bank, ebekwe ~50 km eMpuma kwebhlokho Yommandla Onikisa Umdla, enokuthi ixhase izilwanyana ezisengozini, ezingenamqolo nezihlala ixesha elide;
- Uninzi lweentlobo zokrebe zepelagic ezisesichengeni nezisengozini yokuphela;
- Amafudo eLeatherback afuduka kwindawo;
- Iminenga yamadlozi, ebakho kulo mmandla unyaka wonke;
- Iminenga Humpback neFin, efuduka phakathi koMeyi noDisemba; kunye
- IOrange Shelf Edge MPA, neOrange Seamount neCanyon Complex EBSA.



Umfanekiso4: Ibhloko 3B/4B (ipolygon ebomvu) ngokunxulumene neprojekthi – iindawo zokusebenzelana kokusingqongileyo kuNxweme oluseNtshona, ebonisa indawo yeentaka zolwandle neekoloni zezilwanyana zaselwandle nabemi beminenga abahlala kuyo, iMimandla yaseLwandle eKhuselweyo (MPAs) neMimandla eBalulekileyo Ngokwendalo (EBSAs) (Ithatyathwe kwiProjekthi ye-ARISMA ka-2020).

UKULOBA

Ibhloko Yelayisenisi 3B/4B iyagqithana kubungakanani bomhlaba womgca omkhulu wepelagic njengoko kubonisiwe apha Umfanekiso.

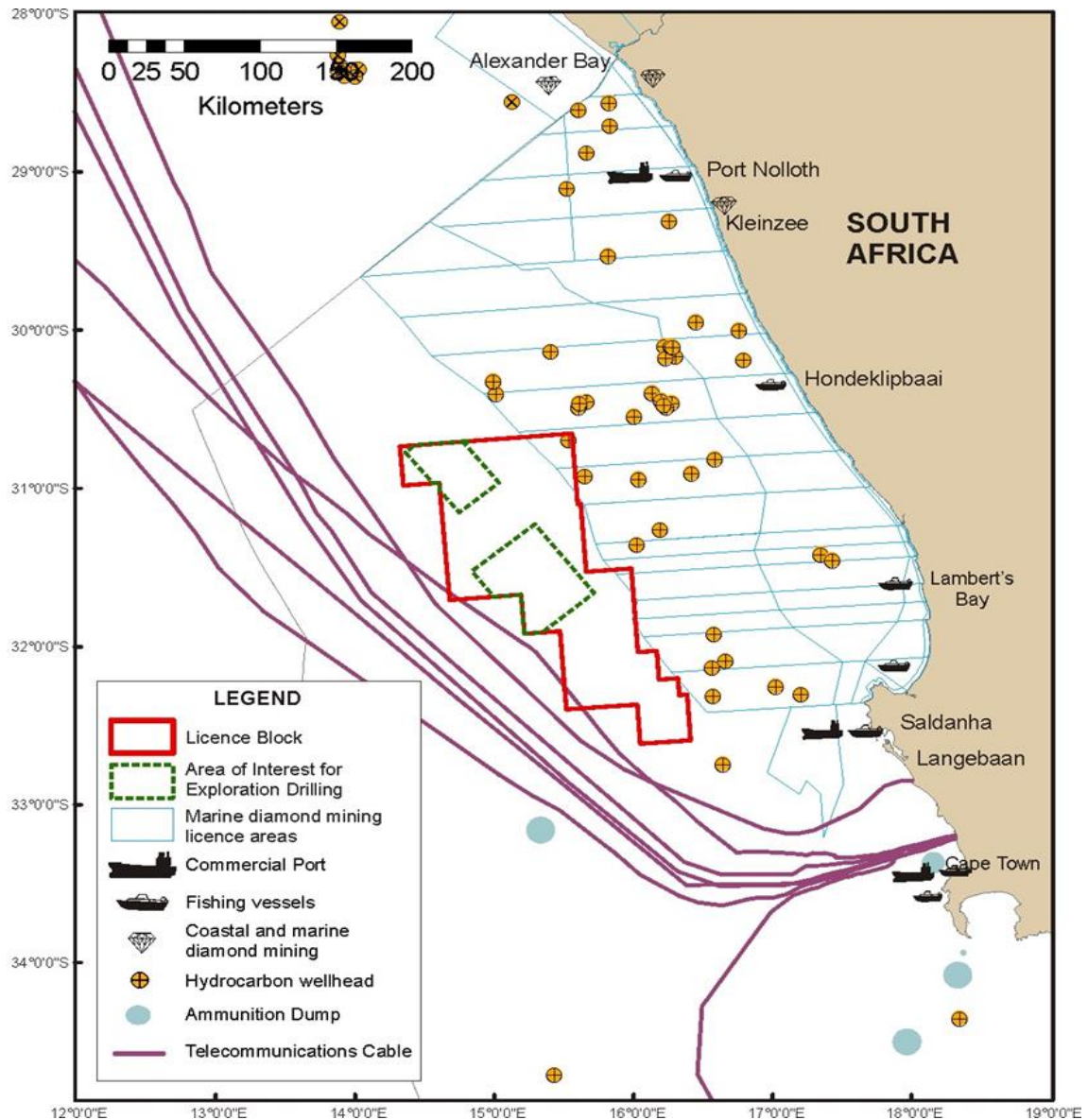


Umfanekiso5: Amagqabantshintshi ngokusasazwa komhlaba kwiinzame zokuloba eziye zachithwa licandelo lomzila omde lijolise kwiintlanzi ezinkulu zepelagic ngokunxulumene nebhloko yelayisensi 3B/4B (ipolygoni eluhlaza) ne-AOI yokugrumba okucetywayo (ipolygon ebomvu).

OKUNYE UKUSETYENZISWA

Okunye ukusetyenziswa kwemizimveliso yokusingqongileyo yaselwandle kubandakanya ukuthathwa kwamanzi okutyisa elwandle, okanye ukucocwa kwegrable yedayimani, iikheybhule zonxibelelwano zangaphantsi kwamanzi, iindawo zokugcina izixhobo neziqhushumbisi namaqula ehydrocarbon. (Umfanekiso). Akukho nanye kule misebenzi ekufuneka nangayiphi na indlela ichatshazelwe yimisebenzi yokuhlola ukugrumba kude nonxweme.

Kukho inani leekheybhule zangaphantsi kolwandle zeefibreoptics ezikhoyo nezicetywayo ezithi ziwele phakathi kweKapa neSaldanha Bay (Umfanekiso), uninzi lwazo zidlulela kwintshona yeBhloko 3B/4B. Kwiindawo zokulahla iimbumbulu kude noNxweme oluseNtshona, akukho nasinye esiwela phakathi kweBhloko 3B/4B.



Umfanekiso6: IBhloko 3B/4B (ipolygon ebomvu) ngokunxulumene nezinye iziseko zophuhliso lwaselwandle kuNxweme oluseNtshona, ebonisa indawo yamaqula amanzi, iimvume zokumbiwa kwedayimani, iikheyibhule zonzibelelwano zangaphantsi kwamanzi neendawo zokugcina izixhobo neziqhushumbisi.

EZENTLALO

Ngaphandle kweempembelelo zentlalo ezinokuthi zidalwe, kukwakho neengozi ezininzi ekuhlaleni ekufuneka ziqwalaselwe phambi kokuba kuqwalaselwe nayiphi na imisebenzi. Imingcipheko yasekuhlaleni iquka:

- Ukuchaswa kweprojekthi ngezibheno namatyala enkundla abangela ukulibaziseka okukhulu kwinkqubo
- Umonakalo kwisidima seshishini
- Ukunqongophala kwelayisensi yentlalontle yokusebenza
- Uqhanqalazo lwabahlali nezidubedube ezinokubakho
- Ukudinwa kwabachaphazelekayo

EMzantsi Afrika inkqubo yogunyaziso lokusingqongileyo ichatshazelwa yimisebenzi ethile. Ngenxa yoko, iprojekthi inokufuneka idlule kwiinkqubo ezininzi zovavanyo lwempembelelo ngexesha lezigaba ezahlukeneyo zeprojekthi. Le Ngxelo Yovavanyo Lwempembelelo Yentlalo isebenza kuphela ekugrumbeni inani eliqingqiweyo lamaqula yokuhlola (phakathi kwe-1 ne-5). Imisebenzi iya kwenzeka > kweekhilomitha ezili-180 ukusuka

elunxwemeni. Ngenxa yoko, iimpembelelo zentlalo ezithe ngqo kulo msebenzi zilinganiselwe. Iziganeko ezintlanu ezikhoyo ezibangela iimpembelelo kummandla weprojekthi zichongiwe. Ezi mpembelelo zinxulumene nemigodi; ishishini lokuloba; ukutshintsha kwemozulu; imiba yolawulo; nobuhlwempu, ukungalingani, nokungaqeshwa. Nayiphi na impembelelo eveliswa yimisebenzi yokuhlola ecetywayo kufuneka ithathelwe ingqalelo kulo mxholo.

Ukuchaphazeleka okunokubakho okubangelwa ngokuthe ngqo yimisebenzi yokuhlola kunxulumene nefuthe lezehlo ezingacwangciswanga kubomi boluntu, ukungaqiniseki nokubhideka ngezigaba zeprojekthi nemisebenzi, kunye nefuthe kwintsebenziswano yoluntu.

EZOQOQOSHO

Uqoqosho olufumanayo luquka uqoqosho lweengingqi ezingezantsi ezilishumi ezimele ummandla wemveliso yezoqoqosho kunxweme olusentshona yoMzantsi Afrika (okungamele kubhidaniswe noqoqosho Lwesithili soNcweme lwaseNtshona). Uqoqosho olufumanayo lwenze i-R153.0 yeebhiliyoni kumaxabiso akhoyo ngoku eGross Value Added (GVA) ngo-2021 isiba negalelo elimalunga ne-2.7% kuqoqosho Lwesizwe ne-17.4% kwisiphumo esidityanisiweyo soqoqosho lweNtshona noMntla Koloni. Igalelo loqoqosho olufumanayo kuqoqosho Lwesizwe lwahlala lungaguququki phakathi kowama-2015 no-2021, luguququka phakathi kwegalelo le-2.74% ne-2.77% ngonyaka. Igalelo loqoqosho olufumanayo kuqoqosho oludityanisiweyo lwaseNtshona naseMntla Koloni liye laqhubeka lisonyuka, lade lafikelela kwi-17.4% ngowama-2021.

Uqoqosho olufumanayo lusekelwe kuqoqosho olukwinqanaba eliphakamileyo lunoninzi lweziphumo zoqoqosho oluveliswa ziinkonzo zoshishino namacandelo orhwebo athengisayo naworhwebo. Nangona phantse lonke uqoqosho lwengingqi ezingezantsi luneenkonzo ezinkulu zoshishino namacandelo orhwebo weevenkile zemveliso norhwebo, isixa esikhulu semveliso yala macandelo iveliswa kuqoqosho lwemimandla engezantsi yeTable Bay naseBlaauwberg – uqoqosho lwemimandla engasezantsi iTable Bay neBlaauwberg lumela phantse i-69% yesiphumo sisonke esiveliswa luqoqosho olufumanayo ibe ngenxa yoko, lunefuthe elibonakalayo kubume nokusebenza koqoqosho olufumanayo.

INKCUBEKO YEMVELI

Inkcubeko yemveli engaphathekiyo (ICH) yoluntu oluselunxwemeni eMzantsi Afrika, ngakumbi eMntla Koloni naseNtshona Koloni, nefuthe elinokubakho lohlolo oluselunxwemeni kolu luntu, iye yachazwa. Kwenziwa ezi ziphumo ziphambili zilandelayo:

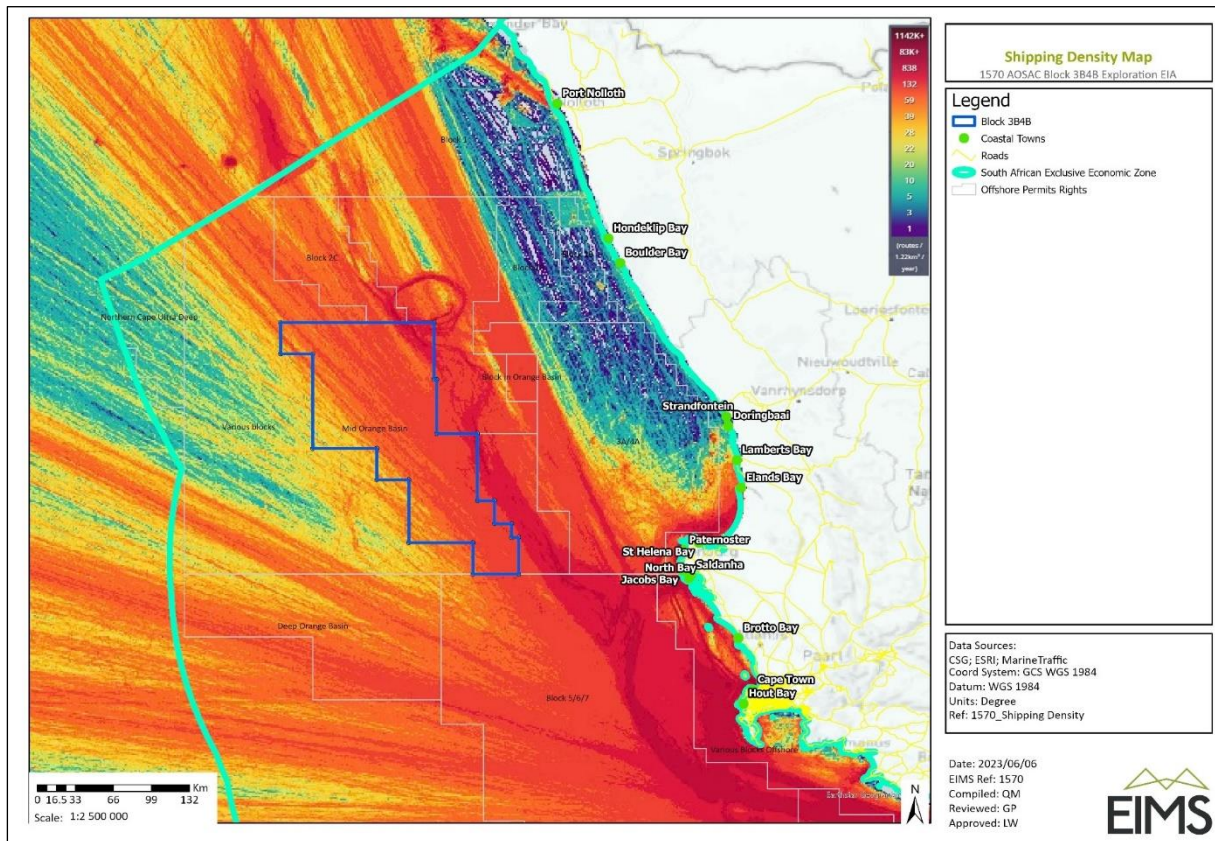


Uphando lugxininise ubutyebi benkcubeko yemveli engaphathekiyo yoluntu lwaselunxwemeni eMzantsi Afrika neempembelelo ezinokubakho ezingalunganga zohlolo lwangaphandle kolwandle kunxibelelwano lwabo lwenkcubeko nolomoya elwandle. Kubalulekile ukuqonda imbono yabo epheleleyo ngolwandle nokuqwalaselwa kwezenzo zabo neenkolelo zabo ngezigqibo ezifanelekileyo zeprojekthi.

UXINANISO LOKUTHUMELA

Inani elikhulu leenqanawa zihamba kwimizila emikhulu yeenqanawa kunxweme loMzantsi Afrika. Malunga nama-96% yezinto ezithunyelwa ngaphandle kweli lizwe zihanjiswa ngolwandle ngamazibuko asibhozo orhwebo. La mazibuko ayindlela yorhwebo phakathi koMzantsi Afrika namahlakani ayo akumazantsi eAfrika kwakunye neendawo zezithuthi eziya zibuya eYurophu, eAsiya, eMelika nakunxweme olusempuma nolusentshona lweAfrika. Umfanekiso 7Abonelela ngesalathiso sokuxinana kweenqanawa kunxweme loMzantsi Afrika.

Inokuqatshelwa into yokuba ukuxinana kweenqanawa kuqhele ukuba sezantsi ukuya kuphakathi kuninzi lommandla ocetywayo wokuhlola ngaphakathi kweBhlokho 3B/4B.



Umfanekiso7: Ukuxinana kweenqanawa kunxweme loMzantsi Afrika

UMGANGATHO WOMOYA NOKUTSHINTSHA KWEMOZULU

Ekubeni obona bungakanani bukhulu buqikelelweyo bomgangatho womhlaba (phantsi kweemeko zomoya osingqongileyo ezimbi kakhulu) bungaphantsi kakhulu kumaxabiso omda weNAAQS, kulindelekile ukuba ukuvela kwawo nawaphi na amanqanaba oxinzelelo olubalulekileyo kuya kuba yinto engaqhelekanga nengabalulekanga xa kuthelekiswa neNAAQS. Ngoko ke, ukukhutshwa okunjalo akunakwenzeka ukuba kube nefuthe elithe ngqo kuso nasiphi na isamkeli okanye omnye umsebenzi, ngaphandle kweenqanawa zeprojekthi ngokwazo.

Uvavanyo belusekwe kwisikophu soku-1 segesi ezikhutshwayo zegreenhouse (GHG) kwisaveyi yohlolo olucetywayo kwinxalenye yeBhlokho 3B/4B. Ikarbon dayoksayidi okside ebalweyo ekhutshweyo elingana (CO₂-e) ibiqikelelwa kwitotali ye-31.87 kilotonne (kt). Ukukhutshwa kweGHG kuqikelelwe kusetyenziswa amaxabiso ekhalori akhethekileyo aseMzantsi Afrika (SA) noxinano lwamafutha (apho lufumanekayo) Nephaneli Karhulumente Kutshintsho Lwemozulu (IPCC) izinto ezikhutshwayo.

Ngokusekelwe kuluhlu lonyaka lweGHG luka-2020 olupapashiweyo lwaseMzantsi Afrika, elona xabiso liphezulu lilonke elikhutshwayo le-CO₂-e eliphuma kwiProjekthi, xa kuqikelelwa ukuba elona xesha lininzi lesaveyi oluzintsuku ezingama-84, liya kuba negalelo elimalunga ne-0.008% kwicandelo "lumandla" waseMzantsi Afrika ka-2020. icandelo lilonke yi-379 505.2 kt CO₂-e kwaye imele igalelo le-0.007% kuluhlu lweGHG lweSizwe lowama-2020 olwenza 468 811.7 kt xa lulonke CO₂-e (ngaphandle Kwamahlathi Nokunye Ukusetyenziswa(FOLU)).

IEuropean Bank Yokwakha Kwakhona Nophuhliso (EBRD) ihlela iiprojekthi ezinegalelo elingaphezu kwe-25 kt CO₂-e ngonyaka ukuze zibe neGHG ekhutshwayo ephawulekayo (EBRD 2019). Nangona ukukhutshwa kweGHG kulindeleke ukuba kube ngaphezu kwalo mlinganiselo, kungaphantsi kungaphantsi komlinganiselo ofunwa Lisebe lezamaHlathi, Lokuloba (DFFE) Nelwesicwangciso Sokuthintela Ukungcoliseka Kokusingqongileyo (PPP) okuyi-100 kt CO₂-e. Ngenxa yoko, iimpembelelo ezingalunganga zezobunzulu obuphantsi, ubukhulu belizwe, ukungaguqulwa kodwa okwexesha elifutshane, umngcipheko wokusingqongileyo uphantsi (ngenxa yexesha

elilinganiselweyo lokukhutshwa nokuhluma kwezityalo kwixesha elizayo). Ekubeni Iprojekthi iyeyexeshana ibe kulindeleke ukuba igqitywe kwixa elizayo elingekude, iinguqu kwiiparamitha zemeteorological akulindelekanga ukuba zibe nempembelelo ebalulekileyo Kwiprojekthi.

UVAVANYO LWEMPEMBELELO YOKUSINGQONGILEYO

Iimpembelelo ezingundoqo ezinokubakho ezichongwe kulo lonke Uvavanyo Lwempembelelo Yokusingqongileyo zibonisiwe apha Kwitheiyibhule below. Kufuneka kuqatshelwe ukuba le ngxelo iza kwenziwa ifumaneke kwi-I&AP ukuze ihlolwe kuze kuchazwe ibe izimvo neenkxalabo zabo ziza kuqwalaselwa Kwingxelo ye-EIA yokugqibela engeniswe kwiPASA/DMRE ukuze ihlalutywe. Iziphumo zothethwano noluntu ziza kusetyenziselwa ukuhlaziya iimpembelelo ezinokubakhona ezichongiweyo, apho kuyimfuneko. Ezi mpembelelo zichongwe yiEAP, iingcaphephe ezichongiweyo, negalelo elivela kuluntu. Ngaphandle kwamanyathelo okunciphisa afanelekileyo nolawulo oluqhubekayo lokusingqongileyo, uninzi lweempembelelo ezichongiweyo zinokunyuka, zichaphazele iindawo ezingaphandle kwendawo yazo echongiweyo yempembelelo. Iimpembelelo ezongezelekayo ezinokubakho zichongiwe, zavanywa, ze kwacetyiswa imilinganiselo yokunciphisa apho kufanelekileyo.

INGXELO YEMPEMBELELO YOKUSINGQONGILEYO

Iziphumo zophononongo lweengcali zigqibe kwelokuba akukho ziphene ezibulalayo zokusingqongileyo ezinokuthintela iprojekthi ecetywayo ukuba iqhube, ukuba nje amanyathelo acetyiswayo okunciphisa nokulawula ayaphunyezwa. Ngokusekwe kubume nomkhamo weprojekthi ecetywayo, inqanaba lendawo lokuphazamiseka eliqikelelweyo ngenxa yemisebenzi yoqwalaselo, iziphumo zophononongo lweengcali, nokuqonda inqanaba lokubaluleka kweempembelelo ezinokubakho kokusingqongileyo, iqela leprojekthi ye-EIA ne-EAP lunoluvo lokuba amanqanaba okubaluleka loninzi lweempembelelo ezimbi ezichongiweyo zinokuncitshiswa ngokubanzi ukuya kwinqanaba elamkelekileyo ngokuphumeza amanyathelo okunciphisa acetyiswayo kwaye iprojekthi kufuneka igunyaziswe. Imephu yobuzaza inikezelwe apha Umfanekiso below kwaye isishwankathelo esibonisa inani leempembelelo nokubaluleka emva kokunciphisa ezi mpembelelo zichongiweyo zinikiwe apha. Umfanekiso below.



Umfanekiso8: Isishwankathelo sempembelelo esibonisa inani nokubaluleka kweempembelelo emva konciphiso.

Kwitheyibhule 2: Iimpembelelo Zokusingqongileyo Ezichongiweyo

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
Ukufunda Ngeemeko Ezingqongileyo Zaselwandle	Ukukhutshwa Kwemisebenzi Yesiqhelo ukuya eLwandle	Ezimbi Ezingaphantsi
	Ukukhutshwa Kwamanzi Okongezwa Kobunzima Kwenqanawa	Ezimbi Ezingaphantsi
	Ingxolo esuka Kwihelikhoptha	Ezimbi Ezingaphantsi
	Ukukhanya Kwiyunithi Yokugrumba Neenqanawa	Ezimbi Ezingaphantsi
	Ukugrunjwa Nokubekwa Kwezixhasi Kumgangatho Wolwandle	Ezimbi Ezingaphantsi
	Ukuphazamiseka kunye/okanye ukuthotywa komhlaba othambileyo wentlenga ngenxa yokukhupha kwezinto eziqinileyo ezigrunjiweyo.	Ezimbi Eziphakathi
	Ukuphazamiseka kunye/okanye ukuthotywa komhlaba oqinileyo wentlenga ngenxa yokukhupha kwezinto eziqinileyo ezigrunjiweyo.	Ezimbi Ezingaphantsi
	Iimpembelelo Zeekhemikhali Zendalo ezishiyekileyo zeeWBM, iiNADF nezongezo zesamente kwizinto eziphilayo zaselwandle kwintlenga engadityaniswa.	Ezimbi Ezingaphantsi
	Iimpembelelo Zeekhemikhali Zendalo ezishiyekileyo zeWBMs, iiNADF nezongezo zesamente kwizinto eziphilayo zaselwandle kwiindawo eziqinileyo.	Ezimbi Ezingaphantsi
	Iimpembelelo Zeekhemikhali Zendalo ezishiyekileyo zeeWBM, iiNADF nezongezo zesamente kwizinto eziphilayo zaselwandle kwiikholamu zamanzi	Ezimbi Ezingaphantsi
	Ukonyuka Koguquququko Lwamanzi Nokuncitshiswa Kokungena Kokukhanya kwi-ikholoji yaselwandle	Ezimbi Ezingaphantsi
	Ukuncipha kokusebenza kwezinto eziphilayo zaselwandle ngenxa yempembelelo engangqalanga yekhemikhali yendalo kwintlenga.	Ezimbi Ezingaphantsi
	Ukuphazamiseka, utshintsho lwendlela yokuziphatha nokuthintelwa kokutyisa kunye/okanye iindawo zokuzalela iintaka zaselwandle, izinja zolwandle, iifudo neecetaceans ngenxa yokugrumba nengxolo yeenqanawa (ingxolo eqhubekayo)	Ezimbi Ezingaphantsi
	Ukuphazamiseka nokutshintsha kwendlela yokuziphatha kwiintaka zolwandle, amatywina, amafudo neecetaceans ngenxa Yophando lweGeophysical Nprofayile yeVertical Seismic (ingxolo engxamisekileyo)	Ezimbi Ezingaphantsi

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
	Iimpembelelo zeziseko ezingundoqo nentsalela yesamente kwizinto eziphilayo zaselwandle - Ukususwa kwequla	Ezimbi Ezingaphantsi
	Iimpembelelo zeziseko ezingundoqo nentsalela yesamente kwizinto eziphilayo zaselwandle - Ukuyekwa kwequla	Ezimbi Ezingaphantsi
	Iimpembelelo zokukhanya kwedangatye kwizilwanyana zaselwandle	Ezimbi Ezingaphantsi
	Impembelelo kwizilwanyana zaselwandle ekukhutshelweni kwamanzi acociweyo avelisiweyo	Ezimbi Ezingaphantsi
	Impembelelo kwizilwanyana zaselwandle ezivela "ekukhutshweni" kwihydrocarbon	Ezimbi Ezingaphantsi
	Ukungqubana kweenqanawa okungacetywanga Nezilo zaselwandle	Ezimbi Ezingaphantsi
	Ukulahleka Kwezixhobo Okungacetywanga	Ezimbi Ezingaphantsi
	Ukukhutshwa kweoyile engacetywanga eya elwandle ngenxa yokungqubana kweenqanawa, ingozi xa kufakwa ioyile emanzini nokugqabhuka komgca / kombhobho	Ezimbi Ezingaphantsi
	Ukuvuthuzeka Kwe-Oyile Okungacetywanga (i-condensate)	Ezimbi Eziphakathi
	Ukuvuthuzeka Kwe-Oyile Okungacetywanga (i-oyile ekwada)	Ezimbi Eziphakathi
Ukuloba	Iimpembelelo kwicandelo lokuloba amazanga okubambisa (ituna pole nepelagic longline enkulu.	Ezimbi Ezingaphantsi
	Ukukhutshelwa ngaphandle Kummandla Wokuloba ngenxa Yokhuseleko Lwexeshana ojikeleze iZikhephe- IPelagic Longline Enkulu	Ezimbi Ezingaphantsi
	Ukuvuza Okubakho Kumaqhekeza Okugrumba	Ezimbi Ezingaphantsi
	Inxolo Yenqanawa Neyokugrumba	Ezimbi Ezingaphantsi
	Inxolo Yeprofayili Yengxaki Ethe Nkqo	Ezimbi Ezingaphantsi
	Inxolo Yesaveyi Yesona (MBES)	Ezimbi Ezingaphantsi
	Impembelelo kushishino lokuloba lokuchithaka kwehydrocarbon enkulu (i-condensate)	Ezimbi Eziphakathi

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
	Impembelelo kushishino lokuloba lokuchitheka kwehydrocarbon enkulu (i-oyile ekrwada)	Ezimbi Eziphakathi
	Ukulahleka Kwezixhobo	Ezimbi Ezingaphantsi
Imveli Yaselwandle	Ukonakaliswa okanye Ilahleko yeMathiriyeli yePalaeontological	Ezintle Ezingaphantsi
	Ukonakaliswa okanye Ukulahleka Kweendawo Zezifundo Ngezinto Zakudala zaseLwandle okanye Imathiriyeli	Ezimbi Ezingaphantsi
Inkcubeko Yemveli	Impembelelo yenkcubeko yemveli yokugrumba - Imisebenzi Eqhelekileyo	Ezimbi Eziphakathi
	Impembelelo yenkcubeko yemveli yokugrumba - Iziganeko Ezingacetywanga	Ezimbi Eziphakathi
Ezentlalo	Impembelelo yokuchitheka kweoyile okanye izehlo ezingacwangciswanga kubomi babalobi	Ezimbi Ezingaphantsi
	Impembelelo yokuchitheka kweoyile kwabashishina ngoloba (esona siganeko sibi)	Ezimbi Eziphakathi
	Ukungaqiniseki/Ukubhideka okunxulumene neenkqubo ezahlukeneyo	Ezimbi Eziphakathi
	Impembelelo kumanyano kuluntu	Ezimbi Eziphakathi
Ezoqoqosho	Ukuvuselela umsebenzi wezoqoqosho (intengiso yeshishini elongezelelweyo) kulo lonke ixabiso leshishini lokuhlola ngexesha lemisebenzi yesaveyi	Ezintle Ezingaphantsi
	Impembelelo kubalobi abarhwebayo abajolise kwiintlanzi ezinkulu zepelagic longline ngenxa yeendawo zokuloba ezicuthiweyo nokuhla kwamandla okubambisa.	Ezimbi Ezingaphantsi
	Ifuthe kwimisebenzi yothutho lwaselwandle ngenxa yokuphazamiseka kweendlela zeenqanawa eziya kumazibuko amakhulu ngakunxweme loMzantsi Afrika. Iindlela ezizezinye zinokuba nefuthe kwimpumelelo yezoqoqosho kulungiselelo lwaselwandle	Ezimbi Ezingaphantsi
	Ukusekwa kwesiseko solungiselelo lonxweme kuya kudala amathuba engqesho ethutyana kubasebenzi abanezakhono	Ezintle Eziphakathi
	Amathuba engqesho adalwe ngokwesiseko solungiselelo aya kubonelela ngembuyekezo kubasebenzi abaya kuthi bafake isandla kubomi bamakhaya nokufikelela kwabo kwiinkonzo nakwizinto eziluncedo.	Ezintle Ezingaphantsi

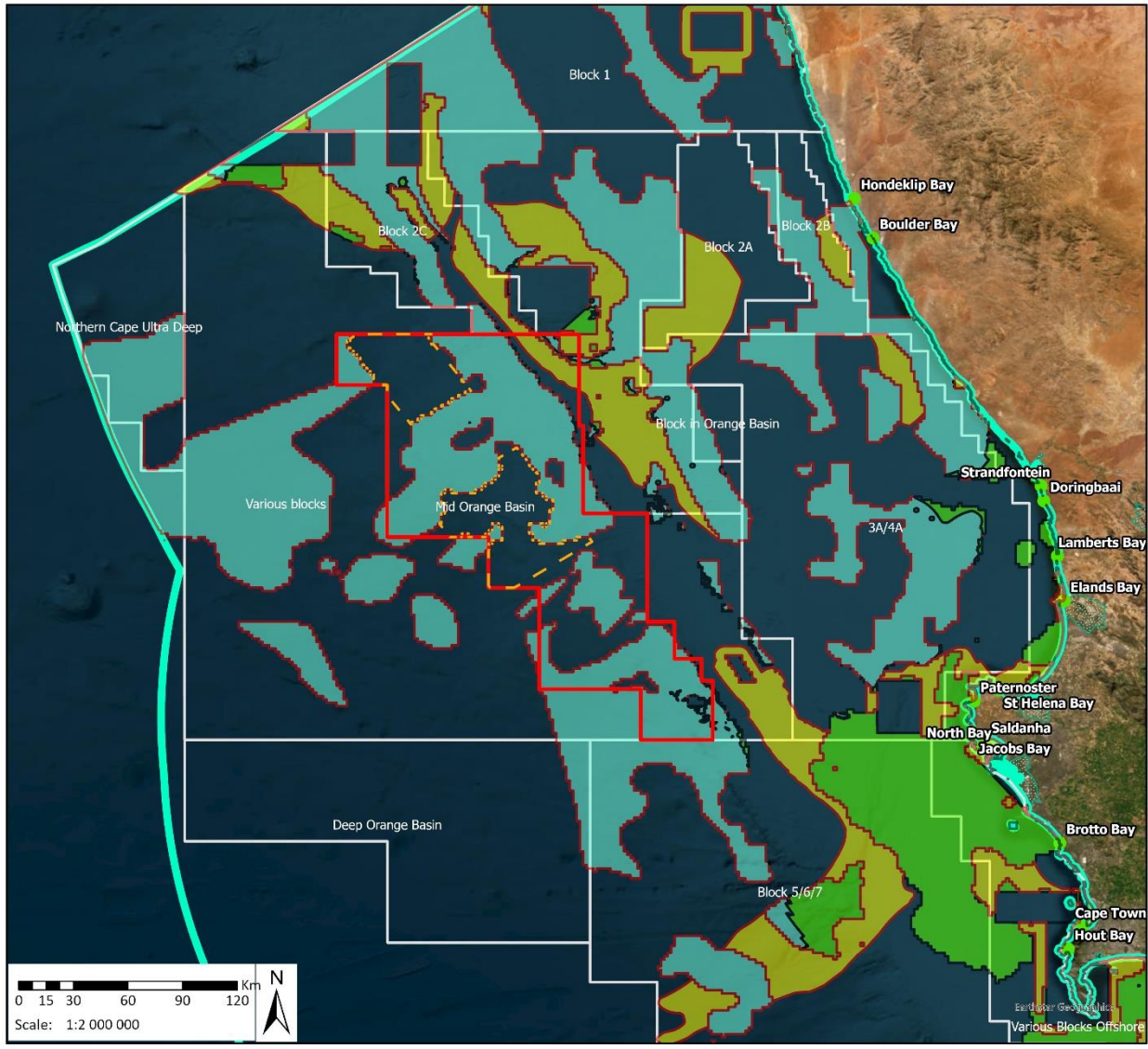
Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
	Umsebenzi wezoqoqosho ovuselelwe kukufumana amagalelo kwimisebenzi yokuhlola uya kwandisa imali karhulumente ngeenzuzo zezemali ngendlela yerhafu (eyobuqu, yoshishino, yemveliso, yokungeniswa kweemveliso elizweni, nji.nji).	Ezintle Eziphakathi
	Ukufunwa kwezinto, izixhobo neenkonzelo ezinxulumene nazo ziya kuvelisa ukuthengiswa kweshishini elongezelelweyo kulo lonke ixabiso lokusebenza kweshishini lokuhlola - amashishini anikezela ngegalelo kwishishini lokuhlola aya kuxhamla ekwandeni kwentengiso nemveliso yezoqoqosho.	Ezintle Eziphakathi
	Amathuba engqesho awongezelelweyo anokwenziwa kulo lonke ixabiso lokusebenza kweshishini lohlolo ngenxa yokwanda kwemfuno yokuveliswa kwimpahla neenkonzelo.	Ezintle Ezingaphantsi
	Imfuno yeenkonzo ezininzi inegalelo kwifiscus yolawulo lwengingqi okanye iarhente ebonelelayo	Ezintle Eziphakathi
	Imfuno eyongezweyo yeziseko ezingundoqo ifuna utyalomali olongezelelweyo ukuhlangabezana nemfuno eyongezelelweyo. Imfuno eyongezelelweyo ikhatshwa ngumthwalo owongezelelweyo wokulungisa	Ezimbi Ezingaphantsi
	Inqanaba lokusebenza kumsebenzi wokuhlola liya kuvelisa imfuno yempahla neenkonzelo eziyimfuneko ukuzinzisa imisebenzi yokusebenza. Le mfundo ezinzileyo ngexesha lokusebenza lokuhlola inokukhokelela ekuthengisweni kweshishini elongezelelweyo kulo lonke ixabiso lokusebenza kweshishini lokuhlola (ukwanda kwemveliso yezoqoqosho, imveliso nexabiso elipheleleyo elongezelelweyo)	Ezintle Eziphakathi
	Amathuba amatsha engqesho kulo lonke ixabiso lokusebenza kweshishini lohlolo anokuvuselelwa ngenxa yokwanda kwemfuno eveliswa ngumsebenzi ocetywayo wokuhlola.	Ezintle Eziphakathi
	Isiseko solungiselelo lomsebenzi wokuhlola sigcina amathuba engqesho enezakhono ngexesha lemisebenzi yohlolo	Ezintle Eziphakathi
	Amathuba engqesho adalwe ngokuthe ngqo (o.k.t. ngesiseko solungiselelo lweprojekthi) okanye ngokungathanga ngqo (o.k.t. kulo lonke ixabiso lokusebenza kweshishino lokuhlola) ngomsebenzi ocetywayo wokuhlola ubonelela ngembuyekezo kubasebenzi okuthi kuncede ekugcineni ubomi bekhaya (okt ukufikelela kwiinkonzo nezinto eziluncedo)	Ezintle Eziphakathi
	Umsebenzi wokuhlola ngenkcitho yawo ngexesha lesigaba sokusebenza uvuselela umsebenzi wezoqoqosho kulo lonke ixabiso lokusebenza kwaye ngenxa yoko linyusa ixabiso lemali (okt irhafu) eqokelelwa ngurhulumente.	Ezintle Eziphakathi
	Umsebenzi wokuhlola unegalelo ngakumbi kwicandelo elisisiseko loqoqosho kwaye ngenxa yalo nto uncedisa ekugcineni ukusebenza koqoqosho kuqoqosho olufumanayo ngokubonelela ngesiseko apho uphuhliso lweSMME lunokuthi lwenzeke khona.	Ezintle Ezingaphantsi
	Imfuno yeenkonzo ezininzi inegalelo kwifiscus yolawulo lwengingqi okanye iarhente ebonelelayo	Ezintle Eziphakathi

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
	Imfuno eyongezweyo yeziseko ezingundoqo ifuna utyalomali olongezelelweyo ukuhlangabezana nemfuno eyongezelelweyo. Imfuno eyongezelelweyo ikhatshwa ngumthwalo owongezelelweyo wokulungisa	Ezimbi Ezingaphantsi
	Umsebenzi ocetywayo wokuhlola unokukhokelela ekuncitshisweni kweendawo zokuloba nokubambisa amandla oshishino lokuloba ngepelagic longline, nto leyo enokuthi, emva koko, ibe nesiphumo sokuncipha kwemveliso yezoqoqosho kushishino lokuloba kuqoqosho olufumanayo. Ngenxa yoko, imfuno ebangwayo yamagalelo kushishino lokuloba neziphumo zeshishini zinokuchaphazeleka (ukunciphisa ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo longeziweyo). Impembelelo ijongwa njengempembelelo yexeshana kuba imisebenzi yokuhlola ayisayi kuba ngumsebenzi ozinzileyo wexesha elide	Ezimbi Ezingaphantsi
	Ngenxa yokuhla okwexeshana kwemveliso yezoqoqosho kushishino lokuloba ipelagic enkulu yoqoqosho, imfuno yengqesho kulo lonke ixabiso lokusebenza kweshishini linokuthotywa, nto leyo echaphazela ukufumaneka kwamathuba engqesho.	Ezimbi Ezingaphantsi
	Ngenxa yokuhla okwexeshana kwemveliso yezoqoqosho kushishino lokuloba ipelagic enkulu yoqoqosho nokuhla kwemfuno yengqesho kushishino, imbuyekezo yabasebenzi nomvuzo wamakhaya axhomekeke kushishino unokuthotywa, nto leyo echaphazela amandla omsebenzi. amakhaya ukuze aqhubeke ephila	Ezimbi Ezingaphantsi
	Ngenxa yokuhla okwexeshana kwemveliso yezoqoqosho kushishino lokuloba lwepelagic enkulu yoqoqosho, ixabiso lemali elifunyanwa ngurhulumente (umzekelo, irhafu yeemveliso, imveliso, amashishini nabasebenzi) ngenxa yomsebenzi wezoqoqosho kulo lonke ixabiso lokusebenza kweshishini linokuncipha.	Ezimbi Ezingaphantsi
	Ukuncipha okwethutyana kwemveliso yezoqoqosho kushishino lokuloba ngepelagic longline enkulu kunokunciphisa okwexeshana imfuno yophuhliso lweshishini elitsha (SMME) ngenxa yokunqongophala komda apho ukuthengiswa kweshishini kunokuvuselwa	Ezimbi Ezingaphantsi
	Indawo yomdla ecetywayo yemisebenzi yokuhlola iyadibana neendlela zokuthumela ngenqanawa ezisekiweyo nezisetyenziswa ngokuqhelekileyo. Oku kutyhoboza kunokubangela ukuphazamiseka ekusebenzeni kweenqanawa, njengoko iinqanawa zinokufuna ukusebenzisa ezinye iindlela. Oko kunxaxha kunokunciphisa ukusebenza kakuhle kwaye emva koko kunciphise imveliso yezoqoqosho (ukunciphisa ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo elongeziweyo) kushishino lwezothutho nokugcinwa kwezoqoqosho. Impembelelo ijongwa njengempembelelo yexeshana kuba imisebenzi yokuhlola ayisayi kuba ngumsebenzi ozinzileyo wexesha elide	Ezimbi Ezingaphantsi
	Ngenxa yokuhla kwexeshana kwemveliso yezoqoqosho kushishino lokuloba ipelagic enkulu yoqoqosho, imfuno yengqesho kulo lonke ixabiso lokusebenza kweshishini linokuthotywa, nto leyo echaphazela ukufumaneka kwamathuba engqesho.	Ezimbi Ezingaphantsi

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
	Ngenxa yokuhla okwexeshana kwemveliso yezoqoqosho kushishino lwezothutho nelokugcina nokuhla kwemfuno yengqesho kushishino, imbuyekezo yabasebenzi nomvuzo wamakhaya axhomekeke kushishino unokuthotywa, nto leyo echaphazela amandla omsebenzi. amakhaya ukuze aqhubeke ephila	Ezimbi Ezingaphantsi
	Ngenxa yokuhla okwexeshana kwemveliso yezoqoqosho kushishino lwezothutho nelokugcina, ixabiso lemali elifunyanwa ngurhulumente (umzekelo, irhafu yeemveliso, imveliso, amashishini nabasebenzi) ngenxa yomsebenzi wezoqoqosho kulo lonke ixabiso lokusebenza kweshishini linokuncipha.	Ezimbi Ezingaphantsi
	Ukuncipha okwethutyana kwemveliso yezoqoqosho olufumanayo lwezothutho kunye neshishini lokugcina kunokunciphisa okwethutyana imfuno yophuhliso lweshishini elitsha (SMME) ngenxa yomda olinganiselweyo apho ukuthengiswa kweshishini kunokuvuselelwa.	Ezimbi Ezingaphantsi
	Umsebenzi wokusabela ekuchithekeni kweoyile unokuvelisa imfuno yempahla neenkonzo eziyimfuneko ukuzinzisa imisebenzi yokusebenza. Le mfuno ezinzileyo ngexesha lokusabela ekuhloleni inokukhokelela ekuthengisweni kweshishini elongezelelweyo kulo lonke ixabiso lokusebenza kweshishini lokusabela (ukwanda kwemveliso yezoqoqosho, imveliso nexabiso elipheleleyo elongezelelweyo) (i-condensate)	Ezintle Ezingaphantsi
	Umsebenzi wokusabela ekuchithekeni kweoyile unokuvelisa imfuno yempahla neenkonzo eziyimfuneko ukuzinzisa imisebenzi yokusebenza. Le mfuno ezinzileyo ngexesha lokusabela ekuhloleni inokukhokelela ekuthengisweni kweshishini elongezelelweyo kulo lonke ixabiso lokusebenza kweshishini lokusabela (ukwanda kwemveliso yezoqoqosho, imveliso nexabiso elipheleleyo elongezelelweyo) (i-oyile ekrwada).	Ezintle Ezingaphantsi
	Amathuba amatsha engqesho kulo lonke ixabiso lokusabela kweshishini lohlolo anokuvuselelwa ngenxa yokwanda kwemfuno eveliswa ngumsebenzi ocetywayo wokuhlola. (i-condensate)	Ezintle Ezingaphantsi
	Amathuba amatsha engqesho kulo lonke ixabiso lokusabela kweshishini lohlolo anokuvuselelwa ngenxa yokwanda kwemfuno eveliswa ngumsebenzi ocetywayo wokuhlola. (i-oyile ekrwada)	Ezintle Ezingaphantsi
	Amathuba engqesho adalwe ngokuthe ngqo okanye ngokungathanga ngqo ngumsebenzi wokusabela abonelela ngembuyekezo kubasebenzi ethi incede ekugcineni ubomi bamakhaya (okt, ukufikelela kwiinkonzo nezinto eziluncedo) (i-condensate)	Ezintle Ezingaphantsi
	Amathuba engqesho adalwe ngokuthe ngqo okanye ngokungathanga ngqo ngumsebenzi wokusabela abonelela ngembuyekezo kubasebenzi ethi incede ekugcineni ubomi bamakhaya (okt, ukufikelela kwiinkonzo nezinto eziluncedo) (i-oyile ekrwada)	Ezintle Ezingaphantsi
	Isiganeko sokuvuthuzeka kwequla sinokukhokelela ekuncitshisweni kweendawo zokuloba nokubambisa amandla oshishino lokuloba ngepelagic longline, nto leyo enokuthi, emva koko, ibe nesiphumo sokuncipha kwemveliso yezoqoqosho kushishino lokuloba kuqoqosho olufumanayo. Ngenxa yoko, imfuno ebangwayo yamagalelo kushishino lokuloba neziphumo zeshishini zinokuchaphazeleka (ukunciphisa	Ezimbi Ezingaphantsi

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
	<p>ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo longeziweyo). Impembelelo ijongwa njengempembelelo yexeshana kuba isiganeko sokuvuthuzeka kweqela kusenokungabi ngumsebenzi ozinzileyo wexesha elide (i-condensate)</p>	
	<p>Isiganeko sokuvuthuzeka kweqela sinokukhokelela ekuncitshisweni kweendawo zokuloba nokubambisa amandla oshishino lokuloba ngepelagic longline, nto leyo enokuthi, emva koko, ibe nesiphumo sokuncipha kwemveliso yezoqoqosho kushishino lokuloba kuqoqosho olufumanayo. Ngenxa yoko, imfuno ebangwayo yamagalelo kushishino lokuloba neziphumo zeshishini zinokuchaphazeleka (ukunciphisa ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo longeziweyo). Impembelelo ijongwa njengempembelelo yexeshana kuba isiganeko sokuvuthuzeka kweqela kusenokungabi ngumsebenzi ozinzileyo wexesha elide (i-oyile ekrwada)</p>	Ezimbi Ezingaphantsi
	<p>Indawo enokubakho echatshazelwa sisiganeko sokuvuthuzeka kweqela siwelana neendlela zokuthumela ngenqanawa ezisekiweyo nezisetyenziswa ngokuqhelekileyo. Oku kutyhoboza kunokubangela ukuphazamiseka ekusebenzeni kweenqanawa, njengoko iinqanawa zinokufuna ukusebenzisa ezinye iindlela. Oko kunxaxha kunokunciphisa ukusebenza kakuhle kwaye emva koko kunciphise imveliso yoqoqosho (ukunciphisa ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo elongeziweyo) kushishino lwezothutho nokugcinwa kwezoqoqosho. Impembelelo ijongwa njengempembelelo yexeshana kuba imisebenzi yokuhlola ayisayi kuba ngumsebenzi ozinzileyo wexesha elide (i-condensate)</p>	Ezimbi Ezingaphantsi
	<p>Indawo enokubakho echatshazelwa sisiganeko sokuvuthuzeka kweqela siwelana neendlela zokuthumela ngenqanawa ezisekiweyo nezisetyenziswa ngokuqhelekileyo. Oku kutyhoboza kunokubangela ukuphazamiseka ekusebenzeni kweenqanawa, njengoko iinqanawa zinokufuna ukusebenzisa ezinye iindlela. Oko kunxaxha kunokunciphisa ukusebenza kakuhle kwaye emva koko kunciphise imveliso yoqoqosho (ukunciphisa ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo elongeziweyo) kushishino lwezothutho nokugcinwa kwezoqoqosho. Impembelelo ijongwa njengempembelelo yexeshana kuba imisebenzi yokuhlola ayisayi kuba ngumsebenzi ozinzileyo wexesha elide (i-oyile ekrwada)</p>	Ezimbi Ezingaphantsi
	<p>Indawo enokubakho echatshazelwa sisiganeko sokuvuthuzeka kweqela siwelana neendlela zokhenketho ngenqanawa ezisekiweyo nezisetyenziswa ngokuqhelekileyo. Oku kutyhoboza kunokubangela ukuphazamiseka ekusebenzeni kweenqanawa, njengoko iinqanawa zinokufuna ukusebenzisa ezinye iindlela. Oko kunxaxha kunokunciphisa ukusebenza kakuhle kwaye emva koko kunciphise imveliso yoqoqosho (ukunciphisa ukuthengiswa kweshishini, imveliso yezoqoqosho nexabiso elipheleleyo elongeziweyo) kushishino lwezothutho nokugcinwa kwezoqoqosho. Impembelelo ijongwa njengempembelelo yexeshana kuba imisebenzi yokuhlola ayisayi kuba ngumsebenzi ozinzileyo wexesha elide</p>	Ezimbi Ezingaphantsi
Umgangatho Womoya	Okukhutshwa Ngumoya Osingqongileyo (ngokuqhelekileyo)	Ezimbi Ezingaphantsi
	Okukhutshwa Ngumoya Osingqongileyo (okuphazamisekileyo)	Ezimbi Ezingaphantsi
	Ukutshintsha Kwemozulu (ngokuqhelekileyo)	Ezimbi Ezingaphantsi

Uqeqesho	Impembelelo	Umlinganiselo Wokugqibela
Ukutshintsha Kwemozulu	Ukutshintsha Kwemozulu (okuphazamisekileyo)	Ezimbi Ezingaphantsi
Ekungaywayo kuzo	Enye indlela Kwekungaywayo kuzo	Ezimbi Ezingaphantsi



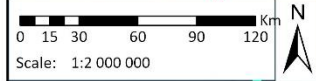
Layout Alternative
1570 AOSAC Block 3B4B Exploration EIA

Legend

- Coastal Towns
- Area of Interest
- Block 3B4B
- Offshore Permits Rights
- South African Exclusive Economic Zone
- Important Bird Areas
- Critical Biodiversity Areas**
- Critical Biodiversity Area Natural
- Critical Biodiversity Area Restore
- Ecological Support Area

Data Sources:
CSG; ESRI
Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1570_CBA Map

Date: 2023/06/23
EIMS Ref: 1570
Compiled: QM
Reviewed: GP
Approved: LW



Umfanekiso9: Ubuntununtu Bemephu Yokuyilwa Bokugqibela