

Plan Name	Bucket	Task Title	Progress	Assigned to
Carbon Roadmap	Reduce current GHG emissions	1.1 Develop and implement a mechanism to include greenhouse gas reduction in GOO Engineering	Complete	Price, Bruce;Wright, Dugald M.
Carbon Roadmap	Reduce current GHG emissions	1.10 Deliver 3 Mte Sustainable Emission Reductions (100% of Operated basis) by 2025.	Complete	King, Dave J
Carbon Roadmap	Reduce current GHG emissions	1.11 Gain approval for new Upstream RSR target by 2025 to include GOO, GWO, & L48.	Complete	
Carbon Roadmap	Reduce current GHG emissions	1.12 Complete energy reviews for 3 GOO assets.	Complete	
Carbon Roadmap	Reduce current GHG emissions	1.13 Identify highest OBO contributors to BP's reported equity GHG emissions and develop a	Complete	
Carbon Roadmap	Reduce current GHG emissions	1.14 Develop SER economic evaluation methodology and present to Upstream Carbon Steering Team	Complete	O'Brien, Robert;Cooper, Rob
Carbon Roadmap	Reduce current GHG emissions	1.2 Evaluate and trial technologies for improved measurement of flare combustion efficiency (CE) and fugitive emission rates to verify / enhance quantification of methane emissions and emission reductions	Complete	Touzel, Daniel F;Evans, Peter;Hashmi, Ahmed A

Carbon Roadmap	Reduce current GHG emissions	1.3 Quantify the impact of plant reliability on asset GHG emissions / GHG intensity.	Completed	
Carbon Roadmap	Reduce current GHG emissions	1.4 Evaluate options for methane emission reductions in L48, including change-out of gas pneumatics. Agree way forward.	Completed	ZZGerard, Faye; ZZFagbayi, Kola
Carbon Roadmap	Reduce current GHG emissions	1.5 Pilot methane identification and quantification technology and its potential for use in	Completed	Touzel, Daniel F; Wright, Dugald M.
Carbon Roadmap	Reduce current GHG emissions	1.6 Evaluate technical options for reducing flaring from Angola Block 18 northern fields (subject to legal, contractual and	Completed	Willis, Stephen H
Carbon Roadmap	Reduce current GHG emissions	1.7 Produce paper outlining the feasibility and strategy for green completions in Oman in Q4 2017	Completed	

Carbon Roadmap	Reduce current GHG emissions	1.7a Trial of green completions in Oman in 1Q 2019	Completed	Krieger, Andy G;Pickard, Kate;White, Daniel
----------------	------------------------------	----------------------------------------------------	-----------	------------------------------------------------------

Carbon Roadmap	Reduce current GHG emissions	1.8 Assess whether to include all GOO assets in the scope of the CCAC Oil &	Completed	King, Dave J
----------------	------------------------------	-----------------------------------------------------------------------------	-----------	--------------

Carbon Roadmap	Reduce current GHG emissions	1.9 Seek consent through L48 governance process to include identified L48 assets in the scope of the CCAC Oil & Gas Methane Partnership by 2018.	Completed	
----------------	------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------	-----------	--

Carbon Roadmap	Reduce future GHG emissions	2.1 Conduct emissions benchmarking at Concept Development stage.	Completed	O'Connor, David J;Olsson, Jenny CM;Wilford, Sarah
----------------	-----------------------------	------------------------------------------------------------------	-----------	------------------------------------------------------------

Carbon Roadmap	Reduce future GHG emissions	2.10 Consider power from shore options for Clair South during optimise.	CompletecGoldie, John
Carbon Roadmap	Reduce future GHG emissions	2.2 Require that projects are developed in accordance with GN 47-061, Energy Optimization in Projects and Operations, and that full consideration is given to the use of	CompletecO'Connor, David J;Olsson, Jenny CM
Carbon Roadmap	Reduce future GHG emissions	2.3 Conduct energy benchmarking for major projects as part of the Energy Value Improving	Completec
Carbon Roadmap	Reduce future GHG emissions	2.4 Develop and implement a mechanism for assessing lower carbon options within the project financial governance process.	CompletecO'Connor, David J;Olsson, Jenny CM;Wilford, Sarah
Carbon Roadmap	Reduce future GHG emissions	2.5 Develop & implement a Carbon Intensity threshold process to apply to projected operational (Scope 1 and 2) GHG emissions from new projects, enabling transparency and informed decision-making if project options exceed the threshold.	Completec
Carbon Roadmap	Reduce future GHG emissions	2.6 Consider the GHG emissions profile as part of imminent decision making for Browse.	Completec
Carbon Roadmap	Reduce future GHG emissions	2.7 Evaluate lower carbon emission options for the Tortue Project and the wider development of Mauritania & Senegal.	CompletecO'Connor, David J;Olsson, Jenny CM;Wilford, Sarah

Carbon Roadmap	Reduce future GHG emissions	2.8 Undertake appraisal work to assess the technical, commercial, legal and contractual feasibility of providing power from shore for the ETAP, Shearwater and Elgin Franklin platforms in the	Complete	Flores, Ariel D
Carbon Roadmap	Reduce future GHG emissions	2.9 Using improved flare combustion efficiency measurement technology, work with GFH approved vendors to better understand and improve flare combustion	In Progress	O'Connor, David J; Wilford, Sarah
Carbon Roadmap	Transition the Upstream Portfolio	3.1 Develop and implement a mechanism to include carbon risk, carbon opportunity and GHG intensity in the Upstream	Complete	Povey, Brian; Cooper, Rob
Carbon Roadmap	Transition the Upstream Portfolio	3.2 Develop a process to build consideration of GHG emissions and potential impact of national carbon policy into Area and Regional Development Plans.	Complete	Wilford, Sarah; Smith, Martyn M
Carbon Roadmap	Transition the Upstream Portfolio	Redacted - First Amendment	Complete	Hill, Gardiner
Carbon Roadmap	Meeting Actions	Agreed topics for future Steering Meetings	In Progress	Ragoonanan, Jali m, Karen; O'Brien, Robert; King, Dave J
Carbon Roadmap	Meeting Actions	Carbon abatement fund FM and draft governance process to be shared with Gordon	Complete	O'Brien, Robert; Cooper, Rob

Carbon Roadma Meeting Actions	Check whether GOO Flaring Completec Policy (in development) covers post-TAR start-up flaring (Bruce Price - Completed)	
Carbon Roadma Meeting Actions	Consider a new name for the Carbon Abatement	CompletecO'Brien, Robert;King,
Carbon Roadma Meeting Actions	Consider discussion on ETAP power from shore at next Shell meeting	CompletecFlores, Ariel D
Carbon Roadma Meeting Actions	<div>Redacted - First Amendment</div>	completecEmery, Dominic;Arderiu Serra, Enric;Towns, Martin
Carbon Roadma Leadership in methane	Deliver Methane Leadership Plan actions	InProgressKing, Dave J
Carbon Roadma Meeting Actions	Plan an Upstream Carbon Workshop during 1H 2019, to be aligned with plans for	CompletecRagoonananJali m, Karen;O'Brien,
Methane LeaderAction 1 - Gordon Birrell	1.1 Develop proposal for a carbon price for operations including how this could be embedded through existing processes.	Completec
Methane LeaderAction 1 - Gordon Birrell	1.2 Roll out carbon price approach across Group (subject to learnings from 1.1).	CompletecEmery, Dominic
Methane LeaderAction 1 - Gordon Birrell	1.3 Develop Group-level carbon forecast and pricing model with 10-year projection and embed in planning process.	CompletecEmery, Dominic

Methane Leader	Action 10 - Dominic Emery	10.1 - Refresh the IMWG purpose and process and associated Advocacy Governance to make it fit	Completed	Emery, Dominic; Jeffers, Paul H.
Methane Leader	Action 10 - Dominic Emery	Redacted - First Amendment	Completed	Alves, Nuno F; Stout, Robert; Streett, Mary
Methane Leader	Action 10 - Dominic Emery	10.3 - Review and make recommendation on future and continued participation in all methane-related voluntary programmes.	Completed	Rogers, Liz; King, Dave J
Methane Leader	Action 11 - Rachel Woods	11.1 - Deploy leaders to tell the gas story and increase BP's visibility on key global platforms e.g. World Gas Conference.	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.10 - Develop a cross-industry methane summit including e.g. agriculture and construction to tackle the methane challenge	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.2 - Create agenda setting content to drive the campaign: deep dive features on methane management and film to	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.3 - Pro-actively engage with stakeholders by hosting global stakeholder events to demonstrate BP's	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.4 - Leverage milestones on BP's most significant gas projects as live proof points	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.5 - Announce technology partnership(s) and look to communicate	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.6 - Develop an open innovation challenge to crowd source ideas to solve a significant aspect of the methane challenge.	Completed	Moore-Bridger, Clare; Woods, Rachel

Methane LeaderAction 11 - Rachel Woods	11.7 - Publish independent data on the methane science cycle with Princeton.	InProgress	Moore-Bridger, Clare;Woods, Rachel
Methane LeaderAction 11 - Rachel Woods	11.8 - Run media/stakeholder visits to demonstrate how we are managing methane at key	InProgress	Moore-Bridger, Clare;Woods, Rachel
Methane LeaderAction 11 - Rachel Woods	11.9 - Show action in the business by sharing publicly what is happening from targets to reporting methodologies and	NotStarted	Moore-Bridger, Clare;Woods, Rachel
Methane LeaderAction 12 - Mary Streett	Redacted - First Amendment	Completed	ZZFagbayi, Kola;Alves, Nuno F;Stout, Robert;Streett, Mary;ZZLawler, David
Methane LeaderAction 12 - Mary Streett	12.2 - Create US Methane Campaign, inclusive of an internal/external communications, engagement, and	Completed	Alves, Nuno F;Sidoti, Elizabeth;Stout, Robert;Streett, Mary
Methane LeaderAction 12 - Mary Streett	Redacted - First Amendment	Completed	Dio, Susan W;ZZFagbayi, Kola;Alves, Nuno F;Ellis, Joe;ZZLawler, David
Methane LeaderAction 12 - Mary Streett	12.4 - Host US focused stakeholder event with the objective of making a meaningful contribution to the world's understanding	Completed	Alves, Nuno F;Sidoti, Elizabeth;Stout, Robert;Streett, Mary
Methane LeaderAction 12 - Mary Streett	12.5 - Build strategy to advocate for improvements to the EPAs GHG Reporting Rule, focused on intermittent pneumatic	InProgress	ZZGerard, Faye;ZZFagbayi, Kola;Alves, Nuno F;Stout, Robert
Methane LeaderAction 12 - Mary Streett	12.6 - Recommend fit-for-purpose tracking tool for new proposed legislation	Completed	Alves, Nuno F;Ellis, Joe;Streett, Mary

Methane Leader	Action 13 - Steve Shaw	13.1 - Develop Upstream methane employee communications plan.	Completed	Shaw, Stephen
Methane Leader	Action 13 - Steve Shaw	13.2 - Implement Upstream methane employee communications plan.	Completed	Shaw, Stephen
Methane Leader	Action 13 - Steve Shaw	13.3 - Develop and implement L48 internal methane communications plan aligned with Segment communication plan.	Completed	ZZFagbayi, Kola; Sidoti, Elizabeth
Methane Leader	Action 13 - Steve Shaw	13.4 - Develop approach to encourage employees to innovate and share best practice to address the methane challenge (e.g. Helios, Energise, cMore).	Completed	Shaw, Stephen
Methane Leader	Action 13 - Steve Shaw	13.5 - Develop Upstream specific methane eLearning package covering methane sources and how they're managed.	In Progress	King, Dave J; Wright, Dugald M.
Methane Leader	Action 14 - Dave King	14.1 - Develop SLL/Executive education programme materials.	Completed	Sathiamoorthy, Muhunthan; Rogers, Liz
Methane Leader	Action 14 - Dave King	14.2 - Identify and agree target audience (minimum: Group Leadership & Upstream SLLs).	Completed	RagoonananJali m, Karen; King, Dave J
Methane Leader	Action 14 - Dave King	14.3 - Develop and implement plan for SLL/ Executive education programme.	In Progress	RagoonananJali m, Karen; King, Dave J

Methane Leader	Action 14 - Dave King	14.4 - Develop OMS Academy module.	Completed	Sathiamoorthy, Muhunthan; Rogers, Liz
Methane Leader	Action 14 - Dave King	14.5 - Develop and implement 'zero methane emissions mindset' for L48 leaders.	In Progress	ZZFagbayi, Kola; ZZLawler, David
Methane Leader	Action 15 - Dave King	15.1 - Develop and agree the key focus areas for the 2018 Sustainability Report on 'Addressing the methane challenge' (include consideration of sources, intensity, asset class etc.)	Completed	King, Dave J; Kalpee, Tyrone
Methane Leader	Action 15 - Dave King	15.10 - Work with industry partners (e.g. OGCI) to build shared understanding of what 'near zero methane emissions' means for the	Completed	Sathiamoorthy, Muhunthan; Rogers, Liz
Methane Leader	Action 15 - Dave King	15.2 - Review and update Upstream methane source surveys, incorporating lessons from first surveys to close gaps (this should include GWO).	Completed	O'Brien, Robert; King, Dave J
Methane Leader	Action 15 - Dave King	15.3 - Conduct comparison of US with non- US methane emission methodologies e.g.	Completed	O'Brien, Robert; King, Dave J
Methane Leader	Action 15 - Dave King	15.4 - L48 Emission Inventory Improvement: Hold peer assist to review L48 internal GHG	Completed	ZZGerard, Faye; ZZFagbayi, Kola
Methane Leader	Action 15 - Dave King	15.5 - Ensure accuracy of data in L48's systems of record that are used as inputs to emissions	Completed	ZZPugh, Brian; ZZBurton, William R

Methane Leader	Action 15 - Dave King	15.6 - Update Group reporting guidelines to improve quantification e.g. a tiered approach to methane emissions	Completed	Rogers, Liz;Castano, Alejandra
Methane Leader	Action 15 - Dave King	15.7 - Develop briefing to support consideration of the possibility of independent external auditing of methane data	Completed	Sathiamoorthy, Muhunthan;Rogers, Liz
Methane Leader	Action 15 - Dave King	15.8 - Work with trade associations (GBG, OGCI, IPIECA) and L48 to develop consistent methane emission benchmarking methodology.	Completed	Rogers, Liz;ZZFagbayi, Kola
Methane Leader	Action 15 - Dave King	15.9 - Work with industry partners (e.g. OGCI) to define industry methodology for determining methane emissions across the value chain.	InProgress	Sathiamoorthy, Muhunthan;Rogers, Liz
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.1 Revisit GPO Carbon Principles and include specific guidance to project teams emphasising the focus on methane.	Completed	Olsson, Jenny CM;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.10 - GFH (Global Facilities Hardware) to require suppliers of equipment to	Completed	Corbally, Jim;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.11 - Lead development of Methane Reducing Best Practices (Methane Guiding Principles) and share implementation strategies	Completed	King, Dave J;Ford, Susan J (Sunbury)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.11a Adopt Reducing Methane Best Practices in Upstream	InProgress	Ford, Susan J (Sunbury)

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.12 - Update L48 Facility Design Manual (FDM) to incorporate design focus on reducing methane emissions from new & modified facilities.	InProgressZZFagbayi, Kola;ZZUrban, Rick J
----------------	----------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.2 Review output from GOO focus area on current methane emissions performance from equipment sources across upstream (e.g. flare, vapour recovery, flanges, valves)	CompletecRios, Aleida G;Aitken, Campbell T
----------------	----------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.3 - Assess and recommend the best available technologies for methane source control for	CompletecRios, Aleida G;Aitken, Campbell T
----------------	----------------------------------------------	-------------------------------------------------------------------------------------------	--------------------------------------------

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.4 - Review actions from other relevant industry initiatives (e.g. OGCI, IPIECA) for potential inclusion into IOGP standards committee or	CompletecPaul, Ed;Mortimer, Richard (SUN)
----------------	----------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.5 - Benchmark and internally report the methane 'intensity' of projects in Concept Development.	InProgressLulla, Amrita;Smith, Russell I.
----------------	----------------------------------------------	---------------------------------------------------------------------------------------------------	-------------------------------------------

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.6 - Review inclusion of low emission (CO2 and CH4) specs as part of scope of work for next phase of JIP 33.	Completed	Kennedy, John;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.7 - Revisit GPO carbon principles to include consideration for	Completed	Olsson, Jenny CM;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.8 - Define process to integrate well flow-back considerations into project concepts and incorporate into rapid screening assessment/project concept selection process.	Completed	Lulla, Amrita;Wilford, Sarah;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.8a Update the Appraisal Management Guide so that Well Flowback considerations are included as an example Tier 1 or Tier 2 decisions.	InProgress	Kennedy, John
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.9 - Engage with suppliers on low carbon (methane and CO2) at supplier forums to identify next generation of low emission	Completed	Corbally, Jim;Mortimer, Richard (SUN)
Methane Leader	Action 3 - Andy Collins / Matt Werner	3.1 Agree and implement plan to enable (Angola) PSVM and (North Sea) Glen	InProgress	Johnston, Andy B;Boyce, Roger;Werner,
Methane Leader	Action 3 - Andy Collins / Matt Werner	3.2 Develop Segment Flaring Practice to further enhance flaring performance in the regions.	InProgress	RagoonananJali m, Karen;King, Dave J;Gordon, Graeme;Wright, Dugald M.
Methane Leader	Action 3 - Andy Collins / Matt Werner	3.3 Develop plan to embed operational mindset (GOO leadership to operators) to	Completed	Cristofoli, Giovanni;Gordon, Graeme

Methane Leader	Action 3 - Andy Collins / Matt Werner	3.4 Implement plan to instil InProgressCristofoli, operational mindset to Giovanni;Gordon, Graeme continually improve flare performance.
Methane Leader	Action 4 - David Lawler	4.1 - Evaluate additional remote power options for pneumatic controllers and pumps at L48's dispersed facilities. CompletecZZGerard, Faye;ZZFagbayi, Kola
Methane Leader	Action 4 - David Lawler	4.2 - Replace all High Bleed Controllers in L48. CompletecZZPugh, Brian;ZZBurton, William R
Methane Leader	Action 4 - David Lawler	4.3 - Complete NBU Pneumatic Pump & Liquid Unloading Trials: solar pumps, removing select pumps, replacing high emitting pumps and Project Kelvin. CompletecZZPugh, Brian;ZZLanan, Kevin T
Methane Leader	Action 4 - David Lawler	4.4 - Select technologies from above trials and implement across the L48. InProgressZZPugh, Brian;ZZFagbayi, Kola;ZZLawler, David
Methane Leader	Action 4 - David Lawler	4.5 - Use crowd-sourcing or InProgressZZGerard, other creative ways to find Faye;ZZFagbayi, solutions to the pneumatics Kola;ZZAjakaye,
Methane Leader	Action 5 - Andy Collins	5.1 - Develop plan to seek to influence PAE to reduce methane emissions with InProgressHumphreys, James R;Robbie, Sayma;Sanders,
Methane Leader	Action 5 - Andy Collins	5.2 - Develop plan to seek to influence GUPCO to reduce methane emissions with focus on largest sources (e.g. venting). InProgressHumphreys, James R;Robbie, Sayma;Sanders, John (HSE & Risk)

Methane Leader	Action 5 - Andy Collins	5.3 - Build L48 NOJV and other business partners into L48 Carbon Road Map.	InProgressZZFagbayi, Kola;ZZLawler, David
Methane Leader	Action 5 - Andy Collins	5.4 - Develop strategy to influence flaring performance in Iraq (Rumaila).	CompletecKing, Dave J;Ford, Susan J (Sunbury)
Methane Leader	Action 5 - Andy Collins	5.5 - Develop plan to encourage Rosneft to join the Methane Guiding Principles.	CompletecCampbell, David;Mawer, Chris M
Methane Leader	Action 5 - Andy Collins	5.6 - Develop process to generate robust forecast for NOJV methane emissions.	CompletecYoung, Alison S;Yongo, Roy O;O'Brien, Robert;Robbie,
Methane Leader	Action 5 - Andy Collins	5.7 - Equip NOJV Business Managers to be able to actively influence NOJV operator/partners to lower carbon intensity (incl. methane) on existing operations and with new investments	InProgressHumphreys, James R;Robbie, Sayma;Sanders, John (HSE & Risk)
Methane Leader	Action 6 - Morag Watson	6.1 - Review current portfolio already using xPansiv platform.	CompletecWatson, Morag S;Gray, Julian
Methane Leader	Action 6 - Morag Watson	6.2 - Identify and engage suitable partners (incl. suppliers, partners	InProgressWatson, Morag S;Gray, Julian
Methane Leader	Action 6 - Morag Watson	6.3 - Work with the Global Environmental Products Team to develop accreditation benchmarks which enable delivery of a	InProgressWatson, Morag S;Gray, Julian

Methane Leader	Action 7 - Ahmed Hashmi	7.1 - Develop a plan to use analytics to identify and quantify methane sources (including wells) and inform methane management interventions.	CompletecWatson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.10 - Identify suitable test sites in BP for trialing methane detection and reduction technologies, e.g. wellsite power generation.	CompletecEvans, Peter;Hashmi, Ahmed A
Methane Leader	Action 7 - Ahmed Hashmi	7.11 Develop a high-level vision statement for the methane measurement and monitoring strategy and validate with Upstream	CompletecEvans, Peter
Methane Leader	Action 7 - Ahmed Hashmi	7.2 - Complete full stack test (Ground, Flight & Orbit) to prove measurement accuracy and technology choices.	CompletecWatson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.3 - Deliver proof of concept field trial for drone-mounted Sensor.	CompletecWatson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.4 - Leak Detection & Quantification Trials: Continue current and	CompletecZZGerard, Faye;ZZFagbayi, Kola
Methane Leader	Action 7 - Ahmed Hashmi	7.5 - Develop an upstream prioritised plan to achieve continuous methane	CompletecWatson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.6 - Identify and trial at a site technology to improve flaring performance (e.g. technology to better monitor/detect unlit flare	CompletecTouzel, Daniel F;Evans, Peter;Hashmi, Ahmed A

Methane Leader	Action 7 - Ahmed Hashmi	7.7 - Complete heat map of CompletecEvans, Peter methane related technology projects across all of BP (DIO, L48,	
Methane Leader	Action 7 - Ahmed Hashmi	7.8 - Lead cross functional workshop to agree methane technology focus areas and how technology programmes will be	CompletecEvans, Peter
Methane Leader	Action 7 - Ahmed Hashmi	7.9 - Finalise integrated methane technology plan.	CompletecEvans, Peter;Hashmi, Ahmed A
Methane Leader	Action 8 - Andy Collins	8.1 - Evaluate flare uncertainty (metering and combustion) across GOO operations.	InProgressPrice, Bruce;Alleyne, Ian
Methane Leader	Action 8 - Andy Collins	8.2 - Develop a plan to evaluate flare uncertainty in GWO operations.	InProgressKrieger, Andy G;Pickard, Kate;Partridge, April L
Methane Leader	Action 8 - Andy Collins	8.3 - Define flare metering performance requirements and build maintenance requirements into existing maintenance processes.	NotStartedBeamer, Steve;Werner, Matthew L
Methane Leader	Action 8 - Andy Collins	8.4 - Define flare combustion performance requirements and build maintenance requirements into existing maintenance processes.	NotStartedBeamer, Steve;Werner, Matthew L
Methane Leader	Action 8 - Andy Collins	8.5 - Repair non-functioning flare meters in Angola.	CompletecBoyce, Roger;Werner, Matthew L

Methane Leader	Action 8 - Andy Collins	8.6 - Develop plan to deliver flare metering and combustion performance requirements across GOO.	InProgress	Beamer, Steve; Werner, Matthew L
Methane Leader	Action 9 - Andy Collins	9.1 - Define GOO LDAR requirements.	InProgress	Price, Bruce; Wright, Dugald M.
Methane Leader	Action 9 - Andy Collins	9.2 - Embed standardised LDAR programme across GOO.	InProgress	Price, Bruce; Wright, Dugald M.
Methane Leader	Action 9 - Andy Collins	9.3 - Implement find and fix LDAR programme in L48: prioritized on 30% of production in 2018/19, 60% of production in 2019/20, 100% of production in 2020/21	InProgress	ZZPugh, Brian; ZZFagbayi, Kola
Methane Leader	Action 1 - Gordon Birrell	ACTION 1 - Develop and embed carbon price to support operational interventions consistent with good industry practice to deliver the Sustainable Emission Reductions and	InProgress	Birrell, Gordon Y; Rangel, Patricia
Methane Leader	Action 10 - Dominic Emery	ACTION 10 - Develop and implement a consistent set of Group, Segment and Regional policies and advocacy positions on methane	Complete	tecEmery, Dominic
Methane Leader	Action 11 - Rachel Woods	ACTION 11 - Deliver external Group-wide gas advocacy campaign and demonstrate BP's leadership on methane	InProgress	Woods, Rachel

Methane Leader	Action 12 - Mary Streett	ACTION 12 - Develop and implement US-specific methane advocacy plan aligned with Groupwide campaign	InProgress	Streett, Mary
Methane Leader	Action 13 - Steve Shaw	ACTION 13 - Develop and deliver internal communications plan to educate BP employees on carbon and methane science and BP's role in reducing carbon/ methane emissions	InProgress	Webster, Jonathan (Communications); Shaw, Stephen
Methane Leader	Action 14 - Dave King	ACTION 14 - Develop and implement SLL/ Executive Education Programme to	InProgress	King, Dave J
Methane Leader	Action 15 - Dave King	ACTION 15 - Promote methane reporting transparency	Complete	King, Dave J
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	ACTION 2 -Develop and implement plan to deliver 'Near Zero' Methane	Not Started	O'Connor, David J; Mortimer, Richard (SUN)
Methane Leader	Action 3 - Andy Collins / Matt Werner	ACTION 3 - Develop and implement prioritised plan to drive further reductions	InProgress	Collins, Andrew; Werner, Matthew L
Methane Leader	Action 4 - David Lawler	ACTION 4 - Develop and implement prioritised plan to further reduce L48 methane emissions from	InProgress	ZZLawler, David
Methane Leader	Action 5 - Andy Collins	ACTION 5 - Develop and implement prioritised influencing plan for methane emissions in non-operated JVs and other parties	InProgress	Robbie, Sayma; Collins, Andrew
Methane Leader	Action 6 - Morag Watson	ACTION 6 - Build on blockchain project to develop accredited low emissions gas scheme for the gas value chain	InProgress	Watson, Morag S

Methane Leader	Action 7 - Ahmed Hashmi	ACTION 7 - Develop and implement a plan to enhance methane data accuracy and support further operational	InProgress	Hashmi, Ahmed A
Methane Leader	Action 8 - Andy Collins	ACTION 8 - Develop and implement a plan to enhance flare emissions data accuracy (metered	InProgress	Collins, Andrew
Methane Leader	Action 8 - Andy Collins	ACTION 8 - Develop and implement a plan to enhance flare emissions data accuracy (metered volumes & combustion	InProgress	Collins, Andrew
Methane Leader	Action 9 - Andy Collins	ACTION 9 - Design and implement a standardised Upstream Leak Detection and Repair (LDAR) programme	InProgress	Collins, Andrew
Methane Leader	Action 9 - Andy Collins	ACTION 9 - Design and implement a standardised Upstream Leak Detection and Repair (LDAR)	InProgress	Collins, Andrew

Due date	Completed Date	Description
30/06/2018	24/06/2019	Bruce Price

07/08/2019		Dave King
------------	--	-----------

26/07/2018		D. King
------------	--	---------

31/12/2017	26/07/2018	D. King
------------	------------	---------

30/06/2018	26/07/2018	A. Collins
------------	------------	------------

06/12/2018	07/12/2018	
------------	------------	--

31/12/2018	17/01/2019	A. Hashmi
------------	------------	-----------

31/12/2017 26/07/2018 D. King

31/12/2017 08/10/2018 K. Fagbayi

31/12/2018 17/01/2019

31/12/2017 16/10/2018 F. Bitar

31/12/2017 26/07/2018 A. Krieger

31/03/2019 30/03/2019 A. Krieger

31/12/2019 24/06/2019 Dave King

31/03/2018 26/07/2018 K. Fagbayi

31/12/2018 29/11/2018

30/06/2019	21/06/2019	Clair South project considering Power from Shore as an Option. Meeting held with Gordon
31/12/2018	03/09/2018	D. O'Connor

31/12/2017	26/07/2018
------------	------------

31/03/2018	03/09/2018	D. O'Connor
------------	------------	-------------

31/12/2017	26/07/2018	D. O'Connor
------------	------------	-------------

31/12/2017	26/07/2018	D. O'Connor
------------	------------	-------------

	02/09/2019	D. O'Connor
--	------------	-------------

30/06/2018 06/12/2018A. Flores

12/12/2019 D. O'Connor

30/06/2018 06/12/2018Brian Povey

31/12/2018 09/01/2019M. Smith

25/01/2019 09/05/2019Action agreed at 16th October
Steering Meeting

31/12/2019 Tracker for agreed topics

31/12/2018 09/01/2019

09/11/2018

31/01/2019 26/02/2019

31/01/2019 04/03/2019 Consultant study concluded
Q42018. Business case is
technically sound though

31/03/2019 07/04/2019

<https://tasks.office.com/bp.com/en-US/Home/PlanViews/TW8Jlp28gk2THTyxaHoSopYAEMmk>

30/06/2019 01/05/2019

30/09/2018 08/08/2018 Accountable: Gordon
Birrell Responsible: Bruce Price

31/12/2019 11/01/2019 Accountable: Dominic
Emery Responsible: Dominic
Emery

30/06/2018 29/11/2018 Accountable: Dominic
Emery Responsible: Dominic
Emery

Confidential

BPA_HCOR_00174364

31/12/2018	29/11/2018	Accountable - Dominic Emery Responsible - Paul Jefferiss
01/12/2018	30/11/2018	Accountable - Mary Streett Responsible - Bob Stout
31/12/2018	09/05/2019	Accountable - Dave King / Liz Rogers Responsible - Dave King / Liz Rogers
21/03/2020		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
31/12/2020		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
31/12/2019		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
29/11/2019		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
23/03/2020		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
30/09/2019		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
31/03/2019	24/06/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger

31/10/2019		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
30/09/2019		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
30/09/2019		Accountable - Rachel Woods Responsible - Clare Moore-Bridger
14/12/2018	30/11/2018	Accountable - Mary Streett / Dave Lawler Responsible - Bob Stout / Kola Fagbayi
14/12/2018	30/11/2018	Accountable - Mary Streett Responsible - Bob Stout / Liz Sidoti
30/11/2018	30/11/2018	Accountable - Susan Dio / Dave Lawler Responsible - Joe Ellis / Kola Fagbayi
01/10/2018	10/10/2018	Accountable - Mary Streett Responsible - Bob Stout / Liz Sidoti
31/12/2019		Accountable - Bob Stout / Kola Fagbayi Responsible - Faye Gerard
01/11/2018	10/10/2018	Accountable - Mary Streett Responsible - Joe Ellis

30/06/2018	04/09/2018	Accountable - Steve Shaw Responsible - Marisa Walker
30/09/2018	08/10/2018	Accountable - Steve Shaw Responsible - Marisa Walker
14/01/2019	16/01/2019	Accountable - Liz Sidoti / Kola Fagbayi Responsible - Maegan Clemens
31/03/2019	09/05/2019	Accountable - Steve Shaw Responsible - Steve Shaw
31/12/2019		Accountable - Dave King Responsible - Doog Wright
31/12/2018	14/01/2019	Accountable - Liz Rogers Responsible - Muhunthan Sathiamoorthy
31/03/2019	30/03/2019	Accountable - Dave King Responsible - Karen RagoonananJalim
31/12/2019		Accountable - Dave King Responsible - Karen RagoonananJalim

31/12/2018	14/01/2019	Accountable - Liz Rogers Responsible - Muhunthan Sathiamoorthy
31/12/2019		Accountable - Dave Lawler Responsible - Kola Fagbayi
30/09/2018	28/09/2018	Accountable - Dave King Responsible - Tyrone Kalpee
31/12/2018	14/01/2019	Accountable - Liz Rogers Responsible - Muhunthan Sathiamoorthy
31/12/2018	09/05/2019	Accountable - Dave King Responsible - Sue Ford
31/12/2018	27/11/2018	Accountable - Dave King Responsible - Rob O'Brien
31/12/2018	26/11/2018	Accountable - Kola Fagbayi Responsible - Faye Gerard
31/12/2019	24/06/2019	Accountable - Brian Pugh Responsible - Will Burton

31/12/2018 21/11/2018 Accountable - Liz
Rogers Responsible - Alejandra
Castano

31/01/2019 04/02/2019 Accountable - Liz
Rogers Responsible -
Muhunthan Sathiamoorthy

31/12/2018 14/01/2019 Accountable - Liz
Rogers Responsible - Liz Rogers
/ Kola Fagbayi

31/12/2019 Accountable - Liz
Rogers Responsible -
Muhunthan Sathiamoorthy

30/06/2018 29/08/2018 Accountable: Richard
Mortimer Responsible: Jenny
Olsson

31/03/2019 03/04/2019 Accountable: Richard
Mortimer Responsible: Jim
Corbally

31/12/2018 16/01/2019 Accountable: Dave
King Responsible: Sue Ford

31/12/2019 The Reducing Methane Best
Practices (RMBP) were
developed by the external
Methane Guiding Principles
(MGP) Initiative in 2018 and
endorsed by the Steering
Committee in January 2019. A
2019 Work Program proposal to

31/12/2019

Accountable: Kola
Fagbayi Responsible: Rick
Urban

28/06/2019

08/05/2019 Accountable: Aleida
Rios Responsible: Cam
Aitken Methane source
surveys will be updated per
Action 15.2 (UEC Process
Engineering to support) during
2018. This updated data will be

30/08/2019

30/08/2019 Accountable: Aleida
Rios Responsible: Cam
Aitken This action follows 2.2
which will not be completed

29/03/2019

16/01/2019 Accountable: Richard
Mortimer Responsible: Ed Paul

30/09/2019

Accountable: Russell
Smith Responsible: Amrita Lulla

31/03/2019	16/01/2019	Accountable: Richard Mortimer Responsible: John Kennedy
31/12/2018	29/08/2018	Accountable: Richard Mortimer Responsible: Jenny Olsson
31/03/2019	16/01/2019	Accountable: Richard Mortimer and Russel Smith Responsible: John Kennedy

30/09/2019

31/03/2019	03/04/2019	Accountable: Richard Mortimer Responsible: Jim Corbally
------------	------------	---------------------------------------------------------

30/06/2019		Accountable: Matt Werner Responsible: Roger Boyce/Andy Johnston
------------	--	-----------------------------------------------------------------

30/06/2019		Accountable: Dave King Responsible: Doog Wright/Graeme Gordon
------------	--	---------------------------------------------------------------

31/12/2018	16/01/2019	Accountable: Gio Cristofoli Responsible: Graeme Gordon
------------	------------	--------------------------------------------------------

31/12/2019 Accountable: Gio
Cristofoli Responsible: Graeme
Gordon

31/12/2019 20/06/2019 Accountable: Kola
Fagbayi Responsible: Faye
Gerard

31/12/2019 20/06/2019 Accountable: Brian
Pugh Responsible: Will Burton

31/12/2019 24/06/2019 Accountable: Brian
Pugh Responsible: Kevin Lanan

31/12/2019 Accountable: David
Lawler Responsible: Brian
Pugh/Kola Fagbayi

31/12/2019 Accountable: Kola
Fagbayi Responsible: Faye
Gerard/Bola Ajakaye

31/12/2019 Accountable: Sayma
Robbie Responsible: John
Sanders

31/12/2019 Accountable: Sayma
Robbie Responsible: John
Sanders This action is being
reviewed in light of the
announced GUPCO sale

31/12/2019		Accountable: David Lawler Responsible: Kola Fagbayi
31/12/2019	04/09/2018	Accountable: Dave King Responsible: Sue Ford
31/03/2019	02/05/2019	Accountable: David Campbell Responsible: Chris Mawer
31/12/2019	07/12/2018	Accountable: Sayma Robbie Responsible: Alison Young/Rob O'Brien
31/12/2019		Accountable: Sayma Robbie Responsible: John Sanders
31/12/2018	16/01/2019	Accountable - Morag Watson Responsible - Julian Gray
31/12/2019		Accountable - Morag Watson Responsible - Julian Gray
31/12/2019		Accountable - Morag Watson Responsible - Julian Gray

31/12/2018	16/01/2019	Accountable - Morag Watson Responsible - Julian Gray
31/12/2019	08/01/2019	Accountable - Ahmed Hashmi Responsible - Ahmed Hashmi
31/12/2018	08/01/2019	Action agreed at 16th October 2018 Upstream Carbon Steering Meeting
31/12/2018	03/09/2018	Accountable - Morag Watson Responsible - Julian Gray
30/04/2019	29/04/2019	Accountable - Morag Watson Responsible - Julian Gray
31/12/2018	16/01/2019	Accountable - Kola Fagbayi Responsible - Faye Gerard
30/06/2019	28/06/2019	Accountable - Morag Watson Responsible - Julian Gray
31/12/2018	08/01/2019	Accountable - Ahmed Hashmi Responsible - Dan Touzel

30/06/2018	24/08/2018	Accountable - Ahmed Hashmi Responsible - Peter Evans
30/09/2018	24/08/2018	Accountable - Ahmed Hashmi Responsible - Peter Evans
31/12/2018	08/01/2019	Accountable - Ahmed Hashmi Responsible - Peter Evans
30/09/2019		Accountable - Matt Werner Responsible - Ian Alleyne
31/12/2019		Accountable - Andy Krieger Responsible - April Partridge
31/12/2019		Accountable - Matt Werner Responsible - Steve Beamer
31/12/2020		Accountable - Matt Werner Responsible - Steve Beamer
15/03/2019	09/05/2019	Accountable - Matt Werner Responsible - Roger Boyce

31/12/2019 Accountable - Matt
Werner Responsible - Steve
Beamer

31/12/2019 Accountable - Bruce
Price Responsible - Doog
Wright

30/06/2019 Accountable - Bruce
Price Responsible - Doog
Wright

31/12/2020 Accountable - Kola
Fagbayi Responsible - Brian
Pugh

31/12/2019 Accountable: Gordon Birrell

08/05/2019 Accountable - Dominic Emery

31/12/2020 Accountable - Rachel Woods

31/12/2019 Accountable - Mary Streett

31/12/2019 Accountable - Steve Shaw

31/12/2019 Accountable - Dave King

31/12/2020 24/06/2019 Accountable - Dave King

31/12/2019 Accountable: David
O'Connor Responsible: Richard
Mortimer

31/12/2020 Accountable: Andy
Collins Responsible: Matt
Werner

31/12/2019 Accountable: David Lawler

31/12/2019 Accountable: Andy Collins

31/12/2020 Accountable - Morag Watson

31/12/2019	An integrated plan has been developed for methane technical activity divided over 4 themes: 1. Direct Quantification 2. Continuous
31/12/2019	Accountable - Fuzzy Bitar

31/12/2019RRcv90fV_EyACXiAccountable - Fuzzy Bitar

31/12/2019	Accountable - Fuzzy Bitar
------------	---------------------------

31/12/2019nRSMgC1nCU2AUAccountable - Fuzzy Bitar

Comment

Included in the new Cat C digital projects tool which is currently being deployed.

As of end-2Q 2019 Upstream have delivered 3.05 Mte of SERs with a further 0.15 Mte forecast to year end. See Power BI for latest data: <https://app.powerbi.com/groups/me/apps/3f1cbceb-b9cc-43dd-8e60-5477dedf1845/reports/c30f7de9-ad6e-419c-8250-9cf1258fbd09/ReportSection8cdce3857aa6c7de8689?bookmarkGuid=Bookmarkf7669711063ad9d8de>
No longer relevant. Superseded by RIC target of 3.5Mte (gross) RSRs by 2025.

Alaska Energy Review completed w/c 9th November (telepresence and Skype). AGT Energy Review completed 16-21st November (site visit). North Sea (ETAP) Energy Review planned for December 9th (offshore site visit cancelled due to weather, will utilise ACE facility)

- The top 10 NOJV emitters have been identified, these collectively account for >80% of Upstream's total non-operated equity emissions.
- These NOJVs have been ranked based on BP's level of influence – based on the existing relationship and exposure to other IOCs within the JV (either as operator or partner), on the assumption that other IOCs are also in action on carbon
- A prioritised \$100M fund agreed by Gordon and Murray on 2nd November 2018, work progressing to develop FM and governance process

Flare Destruction Efficiency Measurement – We have successfully completed testing of the Providence Mantis camera for measuring flare efficiency. To recap status:

- The Mantis camera was originally designed for continuous compliance monitoring of downstream flares. As part of a JIP it performed the best out of a range of measurement systems and provided the basis upon which its measured parameter (combustion efficiency) could be correlated to the target measurand for methane intensity – destruction efficiency.
- Early in 2018 the camera was evaluated as a mobile technique capable of being used to survey Upstream flares. The first round of tests in Alaska were a success with the equipment performing to specification in the field. The majority of flares exceeded the 98% destruction efficiency used in emissions calculations. Angola trial:
- The recent trials were

Completed - see attachment

June 5th Notes: 1. L48 committed to reducing CO2e emissions by 700,000 MT CO2e between 2017 and 2025 versus 2016 CO2e baseline inventory a. 350,000 MT CO2e to be reduced between 2017 and 2019 b. 350,000 MT CO2e to be reduced between 2020 and 2025 2. L48 will replace remaining 152 High Bleeds by mid 2019

2 successful trials of FLIR camera quantification technology (QL320) completed - technology being deployed across GOO operating regions 1H19

GtP Northern/ Southern line pressure optimisation to reduce flaring and increase gas export to ALNG: Four low flare field trials were completed over a 2 ½ year period to identify the most suitable mechanism (intervention) to reduce the volume of gas being flared. These involved adjusting flowline pressures, testing and improving compressor stability and identifying oil and gas rate optimization opportunities (including enhanced riser-based gas lift, conversion of certain gas injection
Completed - see attachment

February 27 Update: The first green completion in Oman was started on KZN 402 on 26 February 2019. After completing commissioning and the HAZOP action checklists, the well was opened at 10pm on 25 February and achieved the required parameters to export gas in less than 12 hours.

The team switched gas export to the central processing facility at 9.20am on 26 February. The well is ramping up - export of condensate is expected once a higher rate has been achieved (within 12-24 hours of gas export start). On KZN 402, the team are on target to achieve >90% of hydrocarbons to be diverted to the CPF.

Per email sent to D. King by Sue Ford on June 20th, 2019, containing a Brief for approval by Andy Collins, states, in part: "The attached proposal outlines our position for expanding the number of GOO assets in scope for reporting for 2018 from 5 to 23, bringing AGT, North Sea and Oman into

June 5th Update: Decision retired after conversation with stakeholders.

Ongoing benchmarking to strengthen emissions estimations in pre-GPO to evaluate Life of Field asset emissions. Emissions estimation has been incorporated into the VST tool and pre-GPO workbook.

GHG intensity graphs benchmarking all hopper opportunities are produced for every quarterly COO Appraisal Table. The emissions data and benchmarks have been aligned with other facility power and weight benchmarks. The benchmark data allows differentiation between direct drive and e-drive compression as well as power from shore to facilitate lower carbon option consideration in pre-GPO.

John Goldie confirmed this action can be closed as we are very much progressing the power from shore options during optimise. At the end of the year the project should be able to present a summary of the options and proposed way forward.

"GN 47-061 is already codified in MPcp V5 - CLOSED "

Closed: Use of the energy VIP is already a GPO requirement codified in the GPO HSE Practice. The energy VIP guide has been updated to ensure that energy benchmarking is conducted as part of the energy VIP workshop.

"GHG FM Governance Guide is completed and due for publication. CLOSED GPO Carbon Principles Guide provides guidance for project teams to supplement shall statements in MPcp v5 CLOSED"

June 5th Update: Update Appraisal one-pagers – to include GHG total, carbon intensity and E&S issues and risks. High priority one pagers updated for the COO-AT held at end-Nov. The rest of the Appraisal one-pagers will be updated by Q1 2018. For an update on inclusion of GHG intensity in FM processes see action 3.1. For an update on GHG inclusion in ADPs see action 3.2.

Closed: One page position paper developed and issued outlining options and recommended way forward including alignment with Shell to influence the Operator.

In addition, the Region ran a Carbon Workshop to identify further potential lower carbon options for the Region, and has developed a Regional carbon plan.

Marked as complete based on updates and agreement to create new ongoing action (TBD)

Keeping this action open following discussion with action owner and pushing back the due date until the completion of all the fields trials of flare combustion efficiency using the Mantis VISR camera.

Final document, Guidance Note 14 - GHG Governance, was published to the GIAAP intranet site at the end of November following GPO input/review.

ADPs and Regional Development Plans now require GHG data. Identification of CCUS appraisal opportunities now screened at Appraisal Table during project capital allocation discussions.

Complete - see attached slides provided as part of related Meeting Action to "Create a one page strategy on potential opportunities for CCUS in Alaska relating to 45Q and California regulations"

Green Completions and Carbon Abatement Fund to be discussed at 6th Devember meeting. Xpansiv update and gas advocacy will covered early in 2019

Complete and the FM is now with Gordon and will be shared with UET during the January UEM

Work ongoing to define governance process, but will simply be called the "Upstream Carbon Fund".

Action marked as complete

Confirmed alignment at this stage of the project with Shell

2 slides to illustrate options and relative cost and impact on emissions

The Upstream Carbon Workshop was held on Wednesday 24th April, 2019 and included a cross section of attendees from Group, Upstream (across all three Functions) and Downstream. The output of the workshop was endorsement of the three workstreams going forward that will further define the

Action completed: revised EEM GN-33 process issued in December 2018: The application of carbon prices based on jurisdiction and BP's share of risk in a project has been removed. Carbon prices will apply to all projects based on BP's ownership interest in the project. Changes to Bluebook are effective for projects seeking endorsement from 23 January 2019. An operational carbon fund is proposed to be put in place for Upstream from 2019 (~\$100M over 2 years) to drive SER delivery - this will be managed by a separate governance process under development by Upstream HSE.

Update on behalf of Dominic Emery: Action now closed through a combination of: - GHG Forecast now embedded in Group Planning Process to get Group GHG projection from Segment roll-up; - Zero Net Growth Group Practice developed and in final draft ready for issue by end-2018, which addresses how net growth, offset requirement and carry-forward are determined annually and projected forward to inform IST offset portfolio, and; - Decision made to amend EEM GN-33 / Blue Book to require

Update on behalf of Dominic Emery: The IMWG process has been refreshed with a revised Terms of Reference and renamed the PAWG - Policy and Advocacy Working Group. Lamar remains chair and Gordon Birrell is a member for Upstream. First meeting of the PAWG will be 14th December.

Received and analyzed Exxon's draft Policy Framework recommendation to all Guiding Principles members. US C&EA submitted feedback to Sue Ford on 11/28 (see attached).

Closing action as per Sonna's comments - would be helpful to get update on how Gardiner is progressing on the broader activity though (and Sue has also been doing some mapping of external initiatives)

Bernard Looney took part in a methane-specific panel at CERA Week. He will speak at BNEF and at LNG Shanghai, sharing messaging around gas as well as emissions reductions.

The methane emissions tech showcase on 9 September in Sunbury will include a variety of visual content which can then be shared on digital channels.

The final methane round table in the series will take place in Brussels on 29 April.

The Gas and Methane campaign plan sets out a number of ways to use BP's major Upstream projects to communicate our gas advocacy messaging, whilst showcasing what the business is doing to tackle methane. In Q1 2019 we are planning is to focus on developing a "digital press tour" focusing on The emissions tech showcase event for media will take place on 9 September in Sunbury, and this will include information about technology trials.

To confirm we have decided to focus on communicating BP technology trials as well As the EDF collaboration. We would like to close this task to reflect that.

As we understand it, the main paper on methane leakage is in peer review. We have an action to discuss this with Liz Rogers.

We have now completed filming of methane technologies in the field in L48, Khazzan and Papa Stour. This will feature as part of the virtual reality experiences at the showcase on 9 September, as well as being catalogued in BPTV library for other internal and external uses.

We plan to create a press release for the showcase event on 9 September, which will summarise BP's action and commitments on methane. This will also be communicated to media at the showcase itself.

- The Model Methane Regulation has been completed. Please refer to Chapter 5 in the US Methane Campaign document attached. - US C&EA review and approval expected w/c Dec 3rd.

2018 version of the US Methane campaign document complete. See attached final version of the document.

- BP has strengthened its participation in API Environmental Partnership (EP) group. Senior Air Expert (Dana Wood, BPX) and Senior Director of HSE policy (Jim Nolan, BPA) now attend monthly calls and participated at annual EP conference meeting. - This arrangement will continue to allow BP to lead in coalition with the Industry in the US, by exchanging learnings on methane best practices. - For 2019, Liz Sidoti (Head of U.S. Comms, BPA) who is currently the chair of API's Communications committee, delivered. High level actions include provide better clarity to the public around the 0.2% intensity target and evaluate options to bring along the rest of industry to address methane emissions in the US. We will think about the possibility of doing another US event in 2019, possibly in Houston.

June 2019 Update: Draft Advocacy Plan has been drafted and is being internally reviewed.

After review and with approval from Susan Dio, this action is being discontinued. Rationale is there are already sufficient mechanisms and tools available to the team - both internal and external - for picking up emerging, serious proposals methane regulation proposals across the US. This includes our own

The Upstream methane employee communications plan has been implemented. The significant deliverables to date include: - RP/HOF briefing pack - Upstream AET hub webpage (hosts all Upstream-related AET content) - Webcast: 'Getting real on carbon' (Panel included Gordon Birrell, Shirley Oliveira, Gio Cristofoli and Russell Smith) - AET messages and materials in Team Talk for A L48 internal methane communication plan aligned with Segment's communication plan is completed and approved by Kola Fagbayi.

cMore challenge and \$100M fund successfully launched. Low Carbon category also included in 2019 Helios. Future cMore system updates to include Low Carbon and/or Sustainability benefit category as standard in all challenges. Action closed.

This action will be addressed through the MGP Executives / Masterclass Training delivery that SGI / Imperial College are delivering as part of the MGPs Tool Kit, in support of the Reducing Methane Emissions: Best Practices, which will be adopted and embedded within the Upstream.

Action complete

This action identified the target audience within the Upstream GLL and SLL population to undergo the Education Program for embedding a culture of low carbon across the Upstream. The Education Program will require different groups within this audience to undergo different levels of training, commensurate with their role within the Upstream.

The SLL and Executive Methane Education Programme will be delivered via the ongoing work programme in the Methane Guiding Principles external initiative. Under the MGPs an Implementation Plan for the 8 Reducing Methane Emissions: Best Practices is being developed which includes a Global Methane Toolkit and an Outreach Programme for Executives (1/2 a day) and a Master Class for Operational Leaders (1 Day.) The former is for CEOs/COO; the latter for VP Ops/AOMs audiences. Trials for both

Working with OMSA team on the "Alpha" script with view to finalising in late January - noting some changes to the script to the climate sections that were noted in December review. The methane "video" is a modified version of the Group Leader methane video and will be part of the OMSA Climate module (not standalone). Training available for roll out in April 2019

June 2019 Update: The BPX RC&E has begun environmental training in June to help progress the zero methane emissions mindset. GHG Comms Plan to be developed in 3Q2019.

A frame was developed - see attached - and circulated for comment / edit and the attached is the agreed frame (no comments)

As per comment on the 21/11 this specific action is either complete or needs to be re-worded to be more explicit as the near zero OGCI plan is a multi-year, multi-activity plan and not one specific item or deliverable. The timeline will be 2020+

Action completed as surveys now received from North Sea. Recommend a follow-on action to update the methane calculations for the surveyed assets based on the results of the surveys.

Action Complete - a methodology comparison has been completed for Tangguh (see attached) which shows the US methodology actually yields lower overall methane emissions, largely due to the UK methodology applying more conservative assumptions to methane emissions from combustion sources (flaring and energy). The UK and US methodologies can largely be traced back to the API GHG

5th September Update: The L48 RCE team conducted a peer assist with Upstream HSE and Central S&OR members on May 21, 2018. The L48 RCE Team has established an annual review cycle for the internal GHG calculations.

June 2019 Update: For most inputs to the calculations, BPX uses a data aggregation and validation tool that collects data from multiple BPX systems (work order management, Aquarius, SAP Production & Revenue Accounting), aggregates it into one database, checks for data gaps, and compares it with expected values. Using this logic corrects the data. Episodic events such as gas releases, leak surveys,

After reviewing the recent updates to the reporting requirements, we found that the following text is sufficient for completing this action: (Section 6.1 Hierarchy) "The Annexes often recommend a hierarchy of possible approaches for each reported parameter. Where possible, those methods higher up in the hierarchy (more direct measurement) should be used in preference to those lower down, as minimizing the potential inaccuracy enables easier justification of emission reductions year on year. It Initial draft updated following SME feedback

Action completed based on the update provide don 22/11 and assuming the alignment with the OGCI methodology and GBG) is sufficient - noting BP has now changed methodology to align with OGCI.

The timeline needs to reflect this is a detailed effort spanning a long period of time and linked to multiple activities with parties outside of BP

GPO Carbon principles document has been updated and makes a specific statement early on in the document to state that carbon also includes methane. Document is final awaiting legal review prior to issuing.

See below PMCS actions that are in place. Engage with suppliers on low carbon by GFH product team. Valves: GFH-AT-000002-A-0011 Inst Controls Electrical: GFH-AT-000002-A-0014 Mech Process Materials: GFH-AT-000002-A-0013 Global Rotating Equipment: GFH-AT-000002-A-0012 – this The Reducing Methane Best Practices and associated 2019 Implementation Plan have been approved by the Methane Guiding Principles Steering Committee (11th January 2019). BP will lead the development of a global tool kit to accelerate implementation across the natural gas value chain. This will be done in collaboratin with Shell who are developing a Methane Outreach Program. Education and Awareness are key components of successful implementaion. BP Upstream will embed the The Guides (12-15 pages) for the 8 Reducing Methane Emissions Best Practices will be developed by SLR Consulting International and the University Texas (Austin) as part of the 2019 Work Programme under the Methane Guiding Principles external initiative. Synopses (2-3) pages will also be produced for each Best Practice. The Guides will be available at the end of 3Q 2019. These will be incorporated into the planned Upstream E&S Practices and Upstream Carbon Guide by end 4Q 2019.

June 2019 Update: On track. An updated Facility Design Manual has been drafted and is currently under review.

Latest data received from GOO and reviewed. Summary in attached PowerPoint. Action 2.3 will now be initiated.

This action has been completed. A list of technologies against key sources of methane emissions identified in action 2.2 has been generated with cross reference to appropriate practice, specs and/or guidance (see attached spreadsheet). • This table will be added as a "GPO Low Carbon Checklist" an appendix to the GPO Low Carbon Option Evaluation Guide to be developed this year. It can then be BP will request the technical work fronts identified are included on the next IOGP Standards Committee (SC) meeting agenda. This action is being closed on the basis of the completion of the review, identification of potential work fronts, and addition to IOGP SC agenda.

Extending this action out to end 3Q to allow time for completion. Activities underway in progress to support this action are: • Meeting with Group S&OR/ UHSSE/ UEC to discuss best benchmarks for methane performance (3rd April) • Update VST tool/ rapid screening workbook with methane intensity calculation (current backlog item for the emissions tab). • Determine best place to report methane benchmarking (e.g. Appraisal Table graphs, benchmarking report at end of CD, etc.). • Ensure alignment with wider activities on methane guiding principles implementation.

Review complete. Low emissions equipment will not be added to JIP33 per se, rather the focus will be on improving equipment reliability through expanding our standardisation efforts. Formal kick-off of the JIP33 steering committee is on 31st Jan. Richard Mortimer is going to chair the committee. The drive to improve the sourcing of low emission equipment is being pursued through actions 2.9 and 2.10.

GPO Carbon Principles Plan - Section 7.4.3.5 – Start up and early operations (Sub Plan 20) states that “Start-up flaring should be minimised as far as possible in the start up methodology and sequence, any significant changes to forecast start up flaring should be communicated and approved”

An update to the last comment below... A second action, 2.8b, will now not be raised and tracked through the Methane Leadership plan. The second action, for "UEC to frame up a focus area on well flowback considerations and undertake the focus area work", has already kicked off and will be managed and tracked through the GPO-UEC Focus Area process, which is the normal mechanism for tracking such work. In the spirit of simplification we have therefore decided not to track this in two places and will therefore not add the additional action here.

Russell Smith requested that this action be postponed to end 3Q 2019 at the last Upstream Carbon Steering Committee meeting as there has been several changes in AGM and AM personnel in GCD and the appraisal management organisation needs to get through this transition period before updating the AM Guide.

See below PMCS actions that are in place. Engage with suppliers on low carbon by GFH product team. Valves: GFH-AT-000002-A-0011 Inst Controls Electrical: GFH-AT-000002-A-0014 Mech Process Materials: GFH-AT-000002-A-0013 Global Rotating Equipment: GFH-AT-000002-A-0012 – this has been completed GHG operational performance data specifications (note - not relevant to ICE product lines). Valves: GFH-AT-000002-A-0015 MPM: GFH-AT-000002-A-0017 GRE: GFH-AT-000002-A-0016
Angola PSVM LPGC re-alignment work package was completed on the 3rd May 2019, pre started-up check on schedule for w/c 6th May

Closed to be embedded with Upstream Carbon Guide.

central & frontline leadership behaviours, embedded processes and performance management outcomes agreed The detailed plan has been developed & discussed in AOM workshop; the plan has been reviewed and approved by HoF

1Q19: COO/ HoF regional expectations communication; develop simple & straightforward video training materials for frontline operations; update production reporting tools update (OMS 6.1/8.1: deviations from flaring design) 2Q19: monitor progress (successes/ challenges); add flaring expectations to Site Manager calls/ workshop

June 2019 Update: BPX evaluated the use of zero emission solar heat trace pumps to eliminate gas pneumatic heat trace pumps. BPX installed 246 solar heat trace pumps (BPX has 4 additional solar pumps held in reserve in the event extra heat trace capacity is needed at a site) and eliminated 470 gas pneumatic heat trace pumps as of January 31, 2019 in the NBU. BPX evaluated the use of solar powered controllers, and they were not cost effective.

June 2019 Update: All high bleed controller replacements located at wellsites have been completed. Due to pending divestiture, high bleed controller replacements (21 controllers) at plants and treating facilities will not be completed.

June 2019 Update: BPX installed 246 solar heat trace pumps (BPX has 4 additional solar pumps held in reserve in the event extra heat trace capacity is needed at a site) and eliminated 470 pneumatic pumps in the NBU. Kelvin has been deployed on 900 wells across the NBU. Kelvin achieves optimal well performance by modeling interactions of multiple variables and using model output to create real time algorithmic controls that increase production and reduce atmospheric venting associated with liquids unloading. Based on initial 120 well deployment achieves 36% decrease in well venting events, 6.5% increase in production, resulting in \$881K current realized value on these first wells. And results in fewer trips to manually unload wells reduces drive time and personnel exposure.

June 2019 Update: Solar pump installations were completed (246 installations as of January 31, 2019 and 4 solar pumps held in reserve in the event extra heat trace capacity is needed at sites), and Project Kelvin has been deployed on 900 wells across the NBU.

Potential crowd-sourcing and other creative solutions to the pneumatics and distributed power challenges are being discussed, such as University Partnerships, consortiums, working with industry groups, and working with BP Group and Upstream). Engagement of the workforce to build a carbon on track

on track

June 2019 Update: RC&E developing a presentation identifying significant OBO GHG reduction opportunities. Recommendations will follow.

The World Bank contacted BP on 27th Feb requesting our support and cooperation on gas flaring reduction in Iraq. BP Iraq (Regional President) responded August 2018 reinforcing our continued commitment to reducing flaring in our operations and stated that as a founding member of the GGFR partnership we remain engaged in the GGFR's Steering Committee and Work Program. We also stated Chris/Karen Well done. Regards Gordon

Methane forecast has been incorporated into overall Upstream GHG forecast in Power BI. NOJV methane and total GHG forecasts provided to NOJV team. Forecasts will continue to be refined, but this specific action is now closed.

The review of current portfolio is complete. We are now working on next steps which is mainly starting with 2-3 Upstream POCs and continuing to setup the Master License agreement in parallel (this is tracked in point 6.2)

The framework MSA is at the final stages of agreement between BP and Xpansiv and it expected to complete anytime soon at the time of writing this (2nd May)

Decisions on the DIO/BPX joint plan have been deferred whilst BPX focuses on absorbing its acquisition of BHP Billiton assets. Regarding capturing satellite imagery of OMAN, given the location and priority is given to the US Government, there is a high probability of being bumped. The DIO team has been in discussion with Digital Globe as to how to improve the chances of being prioritized and not being bumped. (we have now got 1 successful capture in 4 attempts)., A plan has been created to improve the Satellite detection and quantification algorithms of Satelitytics based on collecting imagery from a number of BP owned locations with different backgrounds e.g. snow, scrub, desert, water etc. Key locations for testing and first generation deployment have been identified for each of the core technologies under consideration. Please refer to monthly report in the Action 7 header for details and ongoing updates.

Vision statement to be finalised at the 22Jan meeting

DIO with support from L48 HSE and Wamsutter operational team completed field trials including executing a number of controlled methane releases of ground (mAIRsure, Rebellion and Providence), flight (Baker Hughes and Precision Hawk) and orbit (Satelitytics and Geospatial insights) technologies. Full report is available as an attachment

Proposal circulated reviewed and updated.

L48 has a LDAR recommendation based on completed trials that will be reviewed through L48 governance. No single technology or platform excelled at all criteria, however, drones fitted with a methane laser and optical gas imaging (OGI) camera combination are currently the best fit for BPX.

Plan created, reviewed and agreed with Upstream Technology - Peter Evans. Upstream Leadership methane plan agreed to continual monitoring definition and use of OneMap as the single repository for all output data.

We have successfully completed testing of the Providence Mantis camera for measuring flare efficiency. To recap status: • The Mantis camera was originally designed for continuous compliance monitoring of downstream flares. As part of a JIP it performed the best out of a range of measurement systems and provided the basis upon which its measured parameter (combustion efficiency) could be correlated to the target measurand for methane intensity – destruction efficiency. • Early in 2018 the

A full heat map of technical activities currently underway was completed in June 2018 to initiate cross-team working under the integrated technical plan. As projects and opportunities unfold it is being updated periodically to track progress.

A cross functional workshop was held in June to align processes and projects between the various stakeholders involved in the delivery and deployment on technical activities in support of the methane leadership plan. Follow-on actions comprise regular meetings to co-ordinate projects, provide progress updates and share intelligence on technologies entering the market

All processes for delivering technology needs for methane management are now fully integrated

Plan in place to deliver by 3Q 2019 - due date amended to 30/09/2019

Contractor meetings held with Expro (1 meeting) and Schlumberger (2 meetings) to understand contractor approach. Follow up meetings planned internally with David Newman - UEC metering specialist. Outputs of meetings have been documented. Flare camera deployment planning is underway. GWO measurements will be taken in Oman in 3Q 2019. Planning efforts are being led by upstream HSE with support from the above region functional teams and regional representatives. Subsequent locations are likely to include AGT and AsPac however the scheduling of the camera deployment will determine whether measurements from well testing in these regions can be taken

- PSVM: Vendor BHGI is on schedule to arrive on PSVM on Monday the 13th of May to service the two flare gas flowmeter system (spares probes are on standby at Sonils on target to be shipped this week commencing the 6th of May 2019) - GtP: Vendor Fluenta visited in April and issued a report. Probes have been cleaned and were in relatively good state. HP flare probe is functional and is providing reading, the LP flare probe's cable was obsolete, vendor will be manufacturing a dedicated spare cable replacement as this model is no longer manufactured.

due date needs amending to reflect full workscope, and to follow-on/ align with 8.1/ 3/ 4

Due date extended to end 2Q 2019 to allow for time to incorporate learnings from technology deployment (e.g. QL320, GCI)

June 2019 Update: BPX has successfully implemented an LDAR program on sites that will be divested for approximately ~50% of production. BPX has completed LDAR technology trials and chosen drones equipped with a methane laser and optical gas imaging camera. BPX is currently using the drone on 100% of the production of newly acquired assets to find and fix leaks.

The Methane Emissions Policy attached will be replaced by the IMWG Methane Final BP Position. This represents the Group Position on Methane, with the expectation that it will be appropriately adopted across Segments and Regions.

See milestones updates...all are in progress, some are already complete.

2018 plan delivered. 2019 plan in development and will run throughout the year.

Methane reporting transparency is being progressed through various means: 1. Trials and pilots have been completed and currently various technology are being deployed across Upstream Regions for methane detection, continuous monitoring and measurement. Some of these include - Mantis camera with VISR technology used to confirm flare combustion efficiency in Angola and planned for AGT, Oman and Indonesia before end 2019; Rebellion GCI Camera for 24/7 methane emissions monitoring across site deployed in Oman and currently underway for Trinidad and Alaska; QL320 Emissions Quantification technology deployed in North Sea and AGT and currently underway for Trinidad, Alaska, Oman and Indonesia; drone mounted survey completed for BPX and North Sea.

Glen Lyon: FGR remains a key commissioning objective, but delayed from 3Q18 due to sand & gas management issues & lack of stable operations; latest estimate is for FGR commissioning is 1H19;
PSVM: LP compressor restarted Sep18, initially estimated to be ~12mmscfd; SER TBD (qualification/

Refer to monthly reports (attached) for details

Confidential

BPA_HCOR_00174398

Plan Name	Task Title	Bucket
Carbon Rc1.1	Develop and implement a mechanism to i	Reduce current GHG emissions
Carbon Rc1.10	Deliver 3 Mte Sustainable Emission Redu	Reduce current GHG emissions
Carbon Rc1.11	Gain approval for new Upstream RSR tar	Reduce current GHG emissions
Carbon Rc1.12	Complete energy reviews for 3 GOO asse	Reduce current GHG emissions
Carbon Rc1.13	Identify highest OBO contributors to BP's	Reduce current GHG emissions
Carbon Rc1.14	Develop SER economic evaluation metho	Reduce current GHG emissions
Carbon Rc1.2	Evaluate and trial technologies for improv	Reduce current GHG emissions
Carbon Rc1.3	Quantify the impact of plant reliability on	Reduce current GHG emissions
Carbon Rc1.4	Evaluate options for methane emission re	Reduce current GHG emissions
Carbon Rc1.5	Pilot methane identification and quantific	Reduce current GHG emissions
Carbon Rc1.6	Evaluate technical options for reducing fla	Reduce current GHG emissions
Carbon Rc1.7	Produce paper outlining the feasibility anc	Reduce current GHG emissions
Carbon Rc1.7a	Trial of green completions in Oman in 1Q	Reduce current GHG emissions
Carbon Rc1.8	Assess whether to include all GOO assets i	Reduce current GHG emissions
Carbon Rc1.9	Seek consent through L48 governance pro	Reduce current GHG emissions
Carbon Rc2.1	Conduct emissions benchmarking at Conce	Reduce future GHG emissions
Carbon Rc2.10	Consider power from shore options for C	Reduce future GHG emissions
Carbon Rc2.2	Require that projects are developed in acc	Reduce future GHG emissions
Carbon Rc2.3	Conduct energy benchmarking for major p	Reduce future GHG emissions
Carbon Rc2.4	Develop and implement a mechanism for i	Reduce future GHG emissions
Carbon Rc2.5	Develop & implement a Carbon Intensity t	Reduce future GHG emissions
Carbon Rc2.6	Consider the GHG emissions profile as par	Reduce future GHG emissions
Carbon Rc2.7	Evaluate lower carbon emission options fc	Reduce future GHG emissions
Carbon Rc2.8	Undertake appraisal work to assess the te	Reduce future GHG emissions
Carbon Rc2.9	Using improved flare combustion efficienc	Reduce future GHG emissions
Carbon Rc3.1	Develop and implement a mechanism to i	Transition the Upstream Portfolio
Carbon Rc3.2	Develop a process to build consideration c	Transition the Upstream Portfolio

Redacted - First Amendment

Carbon Rc	Agreed topics for future Steering Meetings	Meeting Actions
Carbon Rc	Carbon abatement fund FM and draft governa	Meeting Actions
Carbon Rc	Check whether GOO Flaring Policy (in develop	Meeting Actions
Carbon Rc	Consider a new name for the Carbon Abatem	Meeting Actions
Carbon Rc	Consider discussion on ETAP power from shor	Meeting Actions
Carbon Rc	Create a one page strategy on potential oppo	Meeting Actions
Carbon Rc	Deliver Methane Leadership Plan actions	Leadership in methane
Carbon Rc	Plan an Upstream Carbon Workshop during 1I	Meeting Actions

Redacted - First Amendment

Methane 1.2	Roll out carbon price approach across Gro	Action 1 - Gordon Birrell
Methane 1.3	Develop Group-level carbon forecast and i	Action 1 - Gordon Birrell
Methane 10.1	- Refresh the IMWG purpose and process	Action 10 - Dominic Emery
Methane 10.2	- Align BP's methane advocacy principles	Action 10 - Dominic Emery

Methane 10.3 - Review and make recommendation on methane emissions Action 10 - Dominic Emery

Methane 11.1 - Deploy leaders to tell the gas story and methane emissions Action 11 - Rachel Woods

Methane 11.10 - Develop a cross-industry methane summit Action 11 - Rachel Woods

Methane 11.2 - Create agenda setting content to drive methane emissions Action 11 - Rachel Woods

Methane 11.3 - Pro-actively engage with stakeholders to reduce methane emissions Action 11 - Rachel Woods

Methane 11.4 - Leverage milestones on BP's most significant methane emissions Action 11 - Rachel Woods

Methane 11.5 - Announce technology partnership(s) to reduce methane emissions Action 11 - Rachel Woods

Methane 11.6 - Develop an open innovation challenge to reduce methane emissions Action 11 - Rachel Woods

Methane 11.7 - Publish independent data on the methane emissions Action 11 - Rachel Woods

Methane 11.8 - Run media/stakeholder visits to demonstrate methane emissions Action 11 - Rachel Woods

Methane 11.9 - Show action in the business by sharing methane emissions Action 11 - Rachel Woods

Methane 12.1 - Create model framework for methane emissions Action 12 - Mary Streett

Methane 12.2 - Create US Methane Campaign, inclusive of methane emissions Action 12 - Mary Streett

Methane 12.3 - Agree BP's level of leadership participation in methane emissions Action 12 - Mary Streett

Methane 12.4 - Host US focused stakeholder event with methane emissions Action 12 - Mary Streett

Methane 12.5 - Build strategy to advocate for improved methane emissions Action 12 - Mary Streett

Methane 12.6 - Recommend fit-for-purpose tracking to reduce methane emissions Action 12 - Mary Streett

Methane 13.1 - Develop Upstream methane employee engagement Action 13 - Steve Shaw

Methane 13.2 - Implement Upstream methane employee engagement Action 13 - Steve Shaw

Methane 13.3 - Develop and implement L48 internal methane emissions Action 13 - Steve Shaw

Methane 13.4 - Develop approach to encourage employee methane emissions Action 13 - Steve Shaw

Methane 13.5 - Develop Upstream specific methane emissions Action 13 - Steve Shaw

Methane 14.1 - Develop SLL/Executive education program on methane emissions Action 14 - Dave King

Methane 14.2 - Identify and agree target audience (minimum methane emissions Action 14 - Dave King

Methane 14.3 - Develop and implement plan for SLL/ Executive methane emissions Action 14 - Dave King

Methane 14.4 - Develop OMS Academy module. Action 14 - Dave King

Methane 14.5 - Develop and implement 'zero methane emissions Action 14 - Dave King

Methane 15.1 - Develop and agree the key focus areas for methane emissions Action 15 - Dave King

Methane 15.10 - Work with industry partners (e.g. OGC methane emissions Action 15 - Dave King

Methane 15.2 - Review and update Upstream methane emissions Action 15 - Dave King

Methane 15.3 - Conduct comparison of US with non-US methane emissions Action 15 - Dave King

Methane 15.4 - L48 Emission Inventory Improvement: Focus on methane emissions Action 15 - Dave King

Methane 15.5 - Ensure accuracy of data in L48's system methane emissions Action 15 - Dave King

Methane 15.6 - Update Group reporting guidelines to include methane emissions Action 15 - Dave King

Methane 15.7 - Develop briefing to support consideration of methane emissions Action 15 - Dave King

Methane 15.8 - Work with trade associations (GBG, OGCI methane emissions Action 15 - Dave King

Methane 15.9 - Work with industry partners (e.g. OGCI) methane emissions Action 15 - Dave King

Methane 2.1 Revisit GPO Carbon Principles and include methane emissions Action 2 - David O'Connor / Richard Mort

Methane 2.10 - GFH (Global Facilities Hardware) to require methane emissions Action 2 - David O'Connor / Richard Mort

Methane 2.11 - Lead development of Methane Reducing methane emissions Action 2 - David O'Connor / Richard Mort

Methane 2.11a Adopt Reducing Methane Best Practice methane emissions Action 2 - David O'Connor / Richard Mort

Methane 2.12 - Update L48 Facility Design Manual (FDN methane emissions Action 2 - David O'Connor / Richard Mort

Methane 2.2 Review output from GOO focus area on cuAction 2 - David O'Connor / Richard Mort

Methane 2.3 - Assess and recommend the best availableAction 2 - David O'Connor / Richard Mort

Methane 2.4 - Review actions from other relevant indusAction 2 - David O'Connor / Richard Mort

Methane 2.5 - Benchmark and internally report the metAction 2 - David O'Connor / Richard Mort

Methane 2.6 - Review inclusion of low emission (CO2 arAction 2 - David O'Connor / Richard Mort

Methane 2.7 - Revisit GPO carbon principles to include cAction 2 - David O'Connor / Richard Mort

Methane 2.8 - Define process to integrate well flow-bacAction 2 - David O'Connor / Richard Mort

Methane 2.8a Update the Appraisal Management GuidcAction 2 - David O'Connor / Richard Mort

Methane 2.9 - Engage with suppliers on low carbon (meAction 2 - David O'Connor / Richard Mort

Methane 3.1 Agree and implement plan to enable (AngiAction 3 - Andy Collins / Matt Werner

Methane 3.2 Develop Segment Flaring Practice to furthiAction 3 - Andy Collins / Matt Werner

Methane 3.3 Develop plan to embed operational mindsAction 3 - Andy Collins / Matt Werner

Methane 3.4 Implement plan to instil operational mindsiAction 3 - Andy Collins / Matt Werner

Methane 4.1 - Evaluate additional remote power optiorAction 4 - David Lawler

Methane 4.2 - Replace all High Bleed Controllers in L48.Action 4 - David Lawler

Methane 4.3 - Complete NBU Pneumatic Pump & LiquicAction 4 - David Lawler

Methane 4.4 - Select technologies from above trials ancAction 4 - David Lawler

Methane 4.5 - Use crowd-sourcing or other creative waAction 4 - David Lawler

Methane 5.1 - Develop plan to seek to influence PAE to Action 5 - Andy Collins

Methane 5.2 - Develop plan to seek to influence GUPCCAAction 5 - Andy Collins

Methane 5.3 - Build L48 NOJV and other business partnAction 5 - Andy Collins

Methane 5.4 - Develop strategy to influence flaring perAction 5 - Andy Collins

Methane 5.5 - Develop plan to encourage Rosneft to joiAction 5 - Andy Collins

Methane 5.6 - Develop process to generate robust foreiAction 5 - Andy Collins

Methane 5.7 - Equip NOJV Business Managers to be ablAction 5 - Andy Collins

Methane 6.1 - Review current portfolio already using xFAAction 6 - Morag Watson

Methane 6.2 - Identify and engage suitable partners (inAction 6 - Morag Watson

Methane 6.3 - Work with the Global Environmental ProiAction 6 - Morag Watson

Methane 7.1 - Develop a plan to use analytics to identifAction 7 - Ahmed Hashmi

Methane 7.10 - Identify suitable test sites in BP for trialAction 7 - Ahmed Hashmi

Methane 7.11 Develop a high-level vision statement forAction 7 - Ahmed Hashmi

Methane 7.2 - Complete full stack test (Ground, Flight &Action 7 - Ahmed Hashmi

Methane 7.3 - Deliver proof of concept field trial for drcAction 7 - Ahmed Hashmi

Methane 7.4 - Leak Detection & Quantification Trials: CiAction 7 - Ahmed Hashmi

Methane 7.5 - Develop an upstream prioritised plan to iAction 7 - Ahmed Hashmi

Methane 7.6 - Identify and trial at a site technology to iiAction 7 - Ahmed Hashmi

Methane 7.7 - Complete heat map of methane related tAction 7 - Ahmed Hashmi

Methane 7.8 - Lead cross functional workshop to agree Action 7 - Ahmed Hashmi

Methane 7.9 - Finalise integrated methane technology pAction 7 - Ahmed Hashmi

Methane 8.1 - Evaluate flare uncertainty (metering and Action 8 - Andy Collins

Methane 8.2 - Develop a plan to evaluate flare uncertaiAction 8 - Andy Collins

Methane 8.3 - Define flare metering performance requiAction 8 - Andy Collins

Methane 8.4 - Define flare combustion performance recAction 8 - Andy Collins
Methane 8.5 - Repair non-functioning flare meters in ArAction 8 - Andy Collins
Methane 8.6 - Develop plan to deliver flare metering anAction 8 - Andy Collins
Methane 9.1 - Define GOO LDAR requirements. Action 9 - Andy Collins
Methane 9.2 - Embed standardised LDAR programme aAction 9 - Andy Collins
Methane 9.3 - Implement find and fix LDAR programmeAction 9 - Andy Collins
Methane ACTION 1 - Develop and embed carbon price tAction 1 - Gordon Birrell
Methane ACTION 10 - Develop and implement a consistAction 10 - Dominic Emery
Methane ACTION 11 - Deliver external Group-wide gas iAction 11 - Rachel Woods
Methane ACTION 12 - Develop and implement US-speciAction 12 - Mary Streett
Methane ACTION 13 - Develop and deliver internal comAction 13 - Steve Shaw
Methane ACTION 14 - Develop and implement SLL/ ExeAction 14 - Dave King
Methane ACTION 15 - Promote methane reporting tranAction 15 - Dave King
Methane ACTION 2 -Develop and implement plan to deAction 2 - David O'Connor / Richard Mort
Methane ACTION 3 - Develop and implement prioritiseAction 3 - Andy Collins / Matt Werner
Methane ACTION 4 - Develop and implement prioritiseAction 4 - David Lawler
Methane ACTION 5 - Develop and implement prioritiseAction 5 - Andy Collins
Methane ACTION 6 - Build on blockchain project to devAction 6 - Morag Watson
Methane ACTION 7 - Develop and implement a plan to iAction 7 - Ahmed Hashmi
Methane ACTION 8 - Develop and implement a plan to iAction 8 - Andy Collins
Methane ACTION 8 - Develop and implement a plan to iAction 8 - Andy Collins
Methane ACTION 9 - Design and implement a standardiAction 9 - Andy Collins
Methane ACTION 9 - Design and implement a standardiAction 9 - Andy Collins

Progress	Assigned	Due date	Descriptive	Completed date	Completed by	Task Id
Complete	Price, Bruce	30/06/2018	Bruce Price	24/06/2019	Ragoonanan	JalinY3hTRWR0WU
Complete	King, Dave J		Dave King	07/08/2019	O'Brien, Robert	6wLIKvF0MEuN
Completed			D. King	26/07/2018	O'Brien, Robert	j1dzdhMlw0um
Completed		31/12/2017	D. King	26/07/2018	O'Brien, Robert	x1HD-UqTOU6
Completed		30/06/2018	A. Collins	26/07/2018	O'Brien, Robert	8Hd0QZo_a06y
Complete	O'Brien, R	06/12/2018		07/12/2018	O'Brien, Robert	iDcldwxnCEunB
Complete	Touzel, David	31/12/2018	A. Hashmi	17/01/2019	Evans, Peter	MqFTFBkDs0SX
Completed		31/12/2017	D. King	26/07/2018	O'Brien, Robert	vEaVUsdCOUiw
Complete	ZZGerard,	31/12/2017	K. Fagbay	08/10/2018	ZZGerard, Faye	LH2wk7rPgESF
Complete	Touzel, David	31/12/2018		17/01/2019	O'Brien, Robert	2AR-U8ERtUKlr
Complete	Willis, Steve	31/12/2017	F. Bitar	16/10/2018	Wright, Dugald	M1PKqQV6-5kmx
Completed		31/12/2017	A. Krieger	26/07/2018	O'Brien, Robert	eyg9rIDmjUKCu
Complete	Krieger, A	31/03/2019	A. Krieger	30/03/2019	White, Daniel	mPTh4kls7EGs
Complete	King, Dave	31/12/2019	Dave King	24/06/2019	Ragoonanan	JalinfDjA0MTbsk2a
Completed		31/03/2018	K. Fagbay	26/07/2018	O'Brien, Robert	KD50T3HAX0yY
Complete	O'Connor,	31/12/2018		29/11/2018	Olsson, Jenny	CNFMcwQ96Z3ke
Complete	Goldie, John	30/06/2019	Clair Sout	21/06/2019	Stileman, Tim	0vyTsVGeUUKd
Complete	O'Connor,	31/12/2018	D. O'Connor	03/09/2018	Olsson, Jenny	CNYasDlpV00kyag
Completed		31/12/2017		26/07/2018	O'Brien, Robert	iiRXZfZIJkeGyH
Complete	O'Connor,	31/03/2018	D. O'Connor	03/09/2018	Olsson, Jenny	CNODY2zUtoMUe
Completed		31/12/2017	D. O'Connor	26/07/2018	O'Brien, Robert	p7_-Cv6B902q
Completed		31/12/2017	D. O'Connor	26/07/2018	O'Brien, Robert	LN_KSrluJ0KBw
Complete	O'Connor, David J		Olsson, Jenny (D. O'Connor	02/09/2019	Stileman, Tim	TLzsXjdWokWT
Complete	Flores, Ariel	30/06/2018	A. Flores	06/12/2018	O'Brien, Robert	LYZTrQFo1kaEx
InProgress	O'Connor,	12/12/2019	D. O'Connor			zsUvI3Rs0UeyO
Complete	Povey, Brian	30/06/2018	Brian Povey	06/12/2018	O'Brien, Robert	Jyqk23fSaU2Re
Complete	Wilford, Sarah	31/12/2018	M. Smith	09/01/2019	Wilford, Sarah	yMUETgwbRke
Complete	Hill, Gardi	25/01/2019	Action agreed	09/05/2019	O'Brien, Robert	F-17h471jEKS1
InProgress	Ragoonanan	31/12/2019	Tracker for agreed topics			PPudsLHsRkq-V
Complete	O'Brien, R	31/12/2018		09/01/2019	O'Brien, Robert	IHBXLO0DxkuN
Completed				09/11/2018	O'Brien, Robert	uHgOb8M12kW
Complete	O'Brien, R	31/01/2019		26/02/2019	O'Brien, Robert	APfzkkqeq0yTH
Complete	Flores, Ariel	31/01/2019	Consultant	04/03/2019	Flores, Ariel D	dGiPnJsXe0OEw
Complete	Emery, David	31/03/2019		07/04/2019	Towns, Martin	NWmD3rKiHUC
InProgress	King, Dave J		https://tasks.office.com/bp.com/en-US/HoudLmk68CP0i_			
Complete	Ragoonanan	30/06/2019		01/05/2019	Ragoonanan	Jalin6qi0kzbAZkqa_
Completed		30/09/2018	Responsible: Bob Ford	08/09/2018	Ford, Susan J	(Su1KWfUEp4qkO
Complete	Emery, David	31/12/2019	Responsible: David Emery	11/01/2019	O'Brien, Robert	SHkDSqE-F0qTy
Complete	Emery, David	30/06/2018	Responsible: David Emery	29/11/2018	O'Brien, Robert	ZytBSz9FHkyet
Complete	Emery, David	31/12/2018	Responsible - David Emery	29/11/2018	O'Brien, Robert	E6pFZICsWUa2
Complete	Alves, Nuno	01/12/2018	Responsible - Nuno F	01/12/2018	Alves, Nuno F	8SWueUTPSk-c

Complete Rogers, Li	31/12/2018	Responsible - Dave O'Brien, Robert	J7Mxq0xCNkSt
InProgres Moore-Br	21/03/2020	Responsible - Clare Moore-Bridger	M5XZZ7AxPUm
InProgres Moore-Br	31/12/2020	Responsible - Clare Moore-Bridger	89w1CLHgP06y
InProgres Moore-Br	31/12/2019	Responsible - Clare Moore-Bridger	bQCpGX_RIUud
InProgres Moore-Br	29/11/2019	Responsible - Clare Moore-Bridger	rworgEhu5E6r0
InProgres Moore-Br	23/03/2020	Responsible - Clare Moore-Bridger	qLnh9u9qgEOM
InProgres Moore-Br	30/09/2019	Responsible - Clare Moore-Bridger	easfgfcWT0qnV
Complete Moore-Br	31/03/2019	Responsible - Clare Moore-Bridger, Robert	g6E2fZxQL0Wm
InProgres Moore-Br	31/10/2019	Responsible - Clare Moore-Bridger	wd3bKMndGU
InProgres Moore-Br	30/09/2019	Responsible - Clare Moore-Bridger	vemM-mywZku
NotStarte Moore-Br	30/09/2019	Responsible - Clare Moore-Bridger	ngxLzgaayEamO
Complete ZZFagbayi	14/12/2018	Responsible - Kola Fagbayi	XPMEJ-PFZU2y
Complete Alves, Nui	14/12/2018	Responsible - Nuno F	DS9CjmQaTEem
Complete Dio, Susar	30/11/2018	Responsible - Nuno F	MLMfrJpVJkmt
Complete Alves, Nui	01/10/2018	Responsible - Nuno F	DIFTCf7-QkG9t
InProgres ZZGerard,	31/12/2019	Responsible - Faye Gerard	IWN527_JCKmX
Complete Alves, Nui	01/11/2018	Responsible - Nuno F	XS61wToa3UC9
Complete Shaw, Ste	30/06/2018	Responsible - Nuno F	1ee3f46-faae-47qwyN8T9LUu
Complete Shaw, Ste	30/09/2018	Responsible - Nuno F	1ee3f46-faae-4g4TN8pIDZkem
Complete ZZFagbayi	14/01/2019	Responsible - Faye Gerard	HxvtcMRY-ka0h
Complete Shaw, Ste	31/03/2019	Responsible - Dave O'Brien, Robert	W4BrgbZZW0K
InProgres King, Dave	31/12/2019	Responsible - Doog Wright	-zI_0hRIhEmOJ
Complete Sathiamoorthy	31/12/2018	Responsible - Sathiamoorthy	IbtriXH3svUaON
Complete Ragoonanan	31/03/2019	Responsible - Ragoonanan	JalinuT9N3vXy1EOa
InProgres Ragoonanan	31/12/2019	Responsible - Karen Ragoonanan	Jalim LXH3d_yIFUCR
Complete Sathiamoorthy	31/12/2018	Responsible - Sathiamoorthy	I7PJwpva_2UGJ
InProgres ZZFagbayi	31/12/2019	Responsible - Kola Fagbayi	JkqkUnEIs0ONh
Complete King, Dave	30/09/2018	Responsible - Sathiamoorthy	Ien5GesiwWkSM
Complete Sathiamoorthy	31/12/2018	Responsible - Sathiamoorthy	IJsRw7reDIEKqx
Complete O'Brien, R	31/12/2018	Responsible - Robert O'Brien	eyPolT4oCU2V
Complete O'Brien, R	31/12/2018	Responsible - Robert O'Brien	YkyeKsdKcEmO
Complete ZZGerard,	31/12/2018	Responsible - Faye Gerard	FMt3ReT-nUGr
Complete ZZPugh, B	31/12/2019	Responsible - Faye Gerard	nTzKhLagNEq2
Complete Rogers, Li	31/12/2018	Responsible - Alejandro Castano	AlejandroCastano
Complete Sathiamoorthy	31/01/2019	Responsible - Sathiamoorthy	IZ9IGWqhQaEq
Complete Rogers, Li	31/12/2018	Responsible - Sathiamoorthy	IMnxKctF4xEqo
InProgres Sathiamoorthy	31/12/2019	Responsible - Muhunthan Sathiamoorthy	6LxEZsmfsUmt
Complete Olsson, Je	30/06/2018	Responsible: Jenny Olsson	CNOtl7mL81akiRJ
Complete Corbally, .	31/03/2019	Responsible: Jim Stileman	EuabM34IhUKP
Complete King, Dave	31/12/2018	Responsible: Susan Ford	(SuSwVU6V8iok-i4
InProgres Ford, Susa	31/12/2019	The Reducing Methane Best Practices (RME3qOE3Nvwmky	
InProgres ZZFagbayi	31/12/2019	Responsible: Rick Urban	IOzT65PvwkKxK

CompleteRios, Aleic	28/06/2019	Methane source	08/05/2019	Althea Campbell	AZLmYU5Q_FU
CompleteRios, Aleic	30/08/2019	This action follows	30/08/2019	Althea Campbell	9eNdilztkOK
CompletePaul, Ed;N	29/03/2019	Responsible: Ed	10/01/2019	Stileman, Tim	-8Jq-LVPbkS4A
InProgresLulla, Amr	30/09/2019	Responsible: Amrita Lulla			7bnxEeTmMUi
CompleteKennedy,	31/03/2019	Responsible: John	16/01/2019	Stileman, Tim	0kqRB93XtkOK
CompleteOlsson, Je	31/12/2018	Responsible: Jenny	29/08/2018	Olsson, Jenny	CM9mntWFjmEy
CompleteLulla, Amr	31/03/2019	Responsible: John	16/01/2019	Stileman, Tim	xb51ic-rs0-28D
InProgresKennedy,	30/09/2019				8y8gzoZkZE2HI
CompleteCorbally, .	31/03/2019	Responsible: John	03/04/2019	Stileman, Tim	3Bt7cTzQLECPe
InProgresJohnston,	30/06/2019	Responsible: Roger Boyce/Andy Johnston			2bVuFWyXtkq7
InProgresRagoonan	30/06/2019	Responsible: Doog Wright/Graeme Gordon			MA1q0_vfs004
CompleteCristofoli,	31/12/2018	Responsible: Graeme	16/01/2019	O'Brien, Robert	R-YODiNG6Uqj
InProgresCristofoli,	31/12/2019	Responsible: Graeme Gordon			CGyokHGrkOGA
CompleteZZGerard,	31/12/2019	Responsible: Faye	20/06/2019	ZZGerard, Faye	rCpCy8nUAU6x
CompleteZZPugh, B	31/12/2019	Responsible: VZ	20/06/2019	ZZGerard, Faye	V9zESbZ_T0usM
CompleteZZPugh, B	31/12/2019	Responsible: Kola	24/06/2019	ZZGerard, Faye	YVDe9fUGs0m
InProgresZZPugh, B	31/12/2019	Responsible: Brian Pugh/Kola Fagbayi			hVysv1XsxUCH
InProgresZZGerard,	31/12/2019	Responsible: Faye Gerard/Bola Ajakaye			Rfoz1MVQEECi
InProgresHumphre'	31/12/2019	Responsible: John Sanders			KbhRwJd_JEaP
InProgresHumphre'	31/12/2019	This action is being reviewed in light of the			77PdzmaAdGh
InProgresZZFagbayi	31/12/2019	Responsible: Kola Fagbayi			ozNZ8QH3vUO
CompleteKing, Dav	31/12/2019	Responsible: Susan	04/09/2018	Ford, Susan J (Su	MoTHwiYnbk6
CompleteCampbell,	31/03/2019	Responsible: Ch	27/05/2019	RagoonananJalinh	7huMKaGUUY
CompleteYoung, Ali	31/12/2019	Responsible: AD	07/12/2018	O'Brien, Robert	DLW7JGoy90aZ
InProgresHumphre'	31/12/2019	Responsible: John Sanders			iD9c9Ulwu0OH
CompleteWatson, M	31/12/2018	Responsible - Julian	16/01/2019	Naik, Manish	m2d3O8mkaEe
InProgresWatson, M	31/12/2019	Responsible - Julian Gray			ECT4sN9I80WH
InProgresWatson, M	31/12/2019	Responsible - Julian Gray			izP0foEZhE2sW
CompleteWatson, M	31/12/2018	Responsible - Julian	16/01/2019	Cameron, Andy	yAEdyL7aIEi4bM
CompleteEvans, Pei	31/12/2019	Responsible - Peter	08/01/2019	Evans, Peter	HL_ddE6fUG-w
CompleteEvans, Pei	31/12/2018	Action ag	08/01/2019	Evans, Peter	J6eVqt8Nakam
CompleteWatson, M	31/12/2018	Responsible - John	10/09/2018	Cameron, Andy	dJGSiaiTCUmuN
CompleteWatson, M	30/04/2019	Responsible - John	10/04/2019	Cameron, Andy	dFtyhKj_nkCW
CompleteZZGerard,	31/12/2018	Responsible - Faye	16/06/2019	ZZGerard, Faye	cpShPtO_kUiD3
CompleteWatson, M	30/06/2019	Responsible - John	28/06/2019	Cameron, Andy	skbfwbSbCkKm
CompleteTouzel, Da	31/12/2018	Responsible - Peter	08/01/2019	Evans, Peter	oF9Cluq5UkGv
CompleteEvans, Pei	30/06/2018	Responsible - Peter	24/03/2018	Evans, Peter	Sar58dRHPEGlc
CompleteEvans, Pei	30/09/2018	Responsible - Peter	24/09/2018	Evans, Peter	_ISU6ce3a02A9
CompleteEvans, Pei	31/12/2018	Responsible - Peter	08/01/2019	Evans, Peter	WZENcGyu2Eq
InProgresPrice, Bru	30/09/2019	Responsible - Ian Alleyne			lIUJjpU1n0Wn
InProgresKrieger, A	31/12/2019	Responsible - April Partridge			THUJmu7NeUy
NotStarteBeamer, S	31/12/2019	Responsible - Steve Beamer			9pUFek6WJEi2

NotStarteBeamer, S	31/12/2020Responsible - Steve Beamer	wlK9JLRBokOG
CompleteBoyce, Ro	15/03/2019Responsible - Robert O'Brien, Robert	UdkcPZ5OhEOI
InProgres Beamer, S	31/12/2019Responsible - Steve Beamer	QAti9O9LMUyv
InProgres Price, Bru	31/12/2019Responsible - Doog Wright	J6MeGI_6lUO2
InProgres Price, Bru	30/06/2019Responsible - Doog Wright	vO1QjEVpL0iRK
InProgres ZZPugh, B	31/12/2020Responsible - Brian Pugh	thLECEnd2EON
InProgres Birrell, Go	31/12/2019Accountable: Gordon Birrell	XLoOpOMaREa
CompleteEmery, Dominic	Accountal 08/05/2019RagoonananJalin	MMhnyjlf7EGV
InProgres Woods, R	31/12/2020Accountable - Rachel Woods	batQqmNh-kO
InProgres Streett, M	31/12/2019Accountable - Mary Streett	hi7DGQf77Uyo
InProgres Webster,	31/12/2019Accountable - Steve Shaw	GI2T_-KC2Umy
InProgres King, Dav	31/12/2019Accountable - Dave King	yFmfHoA8aES8
CompleteKing, Dav	31/12/2020Accountal 24/06/2019RagoonananJalin	HSq5QWn9akS
NotStarteO'Connor,	31/12/2019Responsible: Richard Mortimer	mkGHNUkxBEG
InProgres Collins, Ar	31/12/2020Responsible: Matt Werner	CCYYR84xhUe6
InProgres ZZLawler,	31/12/2019Accountable: David Lawler	sSKTMfnq3kOC
InProgres Robbie, Si	31/12/2019Accountable: Andy Collins	b08XErVp9Eaa
InProgres Watson, M	31/12/2020Accountable - Morag Watson	7g0c1umQtUKA
InProgres Hashmi, A	31/12/2019An integrated plan has been developed for	28ClwfO7HUig
InProgres Collins, Ar	31/12/2019Accountable - Fuzzy Bitar	RRcv90fV_EyAC
InProgres Collins, Ar	31/12/2019AccountalRRcv90fV_EyACXieWw1UzpYAP-vk	
InProgres Collins, Ar	31/12/2019Accountable - Fuzzy Bitar	nRSMgC1nCU2
InProgres Collins, Ar	31/12/2019AccountalnRSMgC1nCU2AUjfWk09M25YAHZZD	

CiPo4VrgqDnpYADeFt
nQJVJCU1r5YACpOL
ALuRXR8-BZYAP7lg
CwVJeMGYE05YAB1am
pzPoGzxAQZYAH2aY
39GMF4785YAKLBZ
BbbbKAWex5YANI4z
wEkeF9AghZYABzyM
SQ-uthfguJYALFIS
wsxU3l4qJYANTRt
tRFAaNicfpYAMNxS
Hwk2wS8a5YABqyQ
Sz97hwmS_JYADzzn
XTF4vNkoQZYAG01b
czPjQAH7XpYAEFwn
aLHGpsnpG95YAHofL
Wzb5rftolpYAAyTZ
llZEvnjzZYAOmvL
r2xbpZ-ZYAAyZA
8Pw2f_QQd1JYAEk_n
JV_2rtFB9pYADI19
_EUCm7hLJYAG7hX
fQfOAYGHTJYAAye3
ICG_MABJpYAJuQS
mnpB4_T5pYAlpm8
KLlmvOWwpYAlICJ
L5KrO5X9xYpYAlkqA
ClxrEu67JYACnZb
eOdfLD3B5YAD1J0
KzDNSidVAZYAHrNE
3jVM8CfCmLZYAPblQ
rQUlaVdgJYAMTCR
-8TAGxlqZYADWr8
yQrrRNsSL2ZYACqHn
d6rn_ovLw5YACa6g
52_s1eRp5YAN-nP
KjQiAXsVLLJYALv79
rgyVg_nG5YAPC7l
O0JpxLBFJYABMg3
M7tyeOqP-pYAEtP6
QhYg8EHFI5YAC6-t

BzBB6K9JW5YALaRO
x4MBsMn5bBZYAAurR
W-MBs-4FQ5YAFdzQ
S9zHX8HjqZYALYmf
g-AFwtWqpYAMuR5
LxYu1azBKJYAK--0
ILtFCi2GpYANQ6k
J5H_ESQTB5YAltvd
Kdu4HSpq_p25YAKEK_
J6YrafZrMJZYAGsUJ
1ea2LZp8JYADIfA
7mDpXMGmb5YALzll
9Ho3cqXkOp5YADhQ_
2-EIDkilyJYAEc3D
49vEpix5JYAJ0tk
JnhYsVyKb5YAC1eh
RRATYxJshJYAJpte
Duz9jcoyepZYACmXt
4CkRCpAt7JYAGN0Y
770bv4nrZYAPJNO
CPr6ZRhUyapYAH2UW
5GkJ4xwpYAGPcY
S-Jvfuob5YAKm2A
rgRsQ70aWpYAKpgG
UARWt0x27ZYADQoy
6CvHQWyApZYABPxf
Rf9_AV6PJYAIJvO
Fkq6fpEz3pYADkLZ
49HauQnhpYAOWx6
Kfb_JInCGZYANXjC
HpjlZ9UQ85YADQGI
IJ2rMGNagZYABykl
x0cqOhpAgJYAKfcY
CXgybi25YAGqnl
WWNWmQdMsrZYAA9t-
wLbg-O7mp5YAMldm
7Kb4AnZhOZYAFoJE
tSFey2g-pYABAh1
uKdU3L25XpYAEDWx
Le767mf-pYAL2xi
vFP7mZsEnE5YAKQfi
HGPVg8ddpYAI304

L6aS7YPNZYAlInj
Qt-aNc9fJYAHaTG
DleEJ4wFpYACe6b
sUkJ8DIHmyZYALD2H
HxtO6lRtrpYALp0W
Pn7gWXGIDx5YANmgP
V-Q2wp3ZYALXuk
pKKBMKNFJYAIdi
LZmD_7xpZYAleYz
EHC6yx-7-5YAM3Gc
qolfCOK3vZYABljD
VityUPvTlpYABrAc
seGDAIV0dZYABzel
qYU0CDJ_yJYANG56
X8XmTa2hpYAFHf5
P3CtJaV_KrJYAFo_Q
yyAxVaqWQpYALnvl
l1VYEZ0CsJYAHV1U
klIIISL-SZYAGWw3
-wGQGrPQ53ZYAGhs2
CXN5Zf0MNK5YABdKf
-7jjlXeTygJYAF_wp
KBzawGWX7lZYAB0Q9
VFrxtHmulZYAPhNJ
ugxWbBDglZYAMgwA
162ylA9mqbJYAGjlh
tdiXfErzs5YAFHkt
9KplJFSS5YAGfYn
y6aJnl0ZYABh16
CueVBNVmJYACMBv
epsx3lk7jJYAKhYA
G1w2wNUapYAOo9q
dkWtU6jzvpYAP0ym
6zpG6FggZYALdVN
_bM5E1MZCJYAOuxD
ZFopl2vHspYALYZ-
EujMrAU2pYANeax
fzJplgROJYAKQ4K
Jsen8L0hxq5YAC08K
Qk4sDhKNL5YAB-MW
G1VWjsKqryJYAHk0l
dVxMhgfej5YAP0Dv

96w-HJukm5YAJB7f
iesVat-1vJYAPbdM
jpx1PQ3XyJYAJjXL
XTMLAM8QupYAPnk5
l5xwFTb6pYAJ7Zd
0dqSocn7M5YAlhHb
-HMP1lejkX5YAPGGD
RM1qOLqqyJYANbzx
Hksq23P5Tk5YAErOW
11-P_Qle1ZYABawm
eToVwsDx6ZYAGXB3
bANEzg_t55YACyTI
dUSAOtmrN35YANCI_
PiJQX4ipwOJYAF0ww
-nyYdrXTtJYALoPa
km8hGnbeiJYAOLpi
lx_mqM3-N5YAEEN7
F__PltTiZpYAGjff
mN_pCHYZBZYAD0ZR
XieWw1UzpYAP-vk

AUjfWk09M25YAHZZD

Task Title TaskId Comment

2.7 EvaluTLzsXjdW In addition, the Region ran a Carbon Workshop to identify further potential low
2.7 EvaluTLzsXjdW This action is being closed out following the project's presentation of it's lower
3.2 DevelMA1q0_v Closed to be embedded with Upstream Carbon Guide.
2.3 - Asse2I9UN1ilz This action has been completed. A list of technologies against key sources of m
1.10 Deliv6wLIKvF0IA As of end-2Q 2019 Upstream have delivered 3.05 Mte of SERs with a further 0.
11.8 - RurvemM-mY We have now completed filming of methane technologies in the field in L48, KI
11.9 - ShongxLzgaay We plan to create a press release for the showcase event on 9 September, whi
11.7 - Putwd3bKMrAs we understand it, the main paper on methane leakage is in peer review. We
7.5 - DeveskbfbwSb Upstream Leadership methane plan agreed to continual monitoring definition and
8.2 - DeveTHUJmu7 Contractor meetings held with Expro (1 meeting) and Schlumberger (2 meeting
ACTION 1 HSq5QWr1. Trials and pilots have been completed and currently various technology are bei
13.5 - Dev-zl_0hRihl This action will be addressed through the MGP Executives / Masterclass Trainir
1.8 AssesfdJa0MTk Per email sent to D. King by Sue Ford on June 20th, 2019, containing a Brief for
4.3 - ComYVDe9fUC June 2019 Update: BPX installed 246 solar heat trace pumps (BPX has 4 additio
2.9 Using zsUvl3RsC Keeping this action open following discussion with action owner and pushing b
2.9 Using zsUvl3RsC This action has been incorporated into the 2019 GFH AOP for the MPM team a
2.10 Cons0vyTsVGe John Goldie confirmed this action can be closed as we are very much progressi
15.5 - EnsnTzKhLA June 2019 Update: For most inputs to the calculations, BPX uses a data aggreg
14.5 - DevJkqkUnEIs June 2019 Update: The BPX RC&E has begun environmental training in June to
12.5 - BuilWn527_J June 2019 Update: Draft Advocacy Plan has been drafted and is being internall
9.3 - ImplthLECEnd June 2019 Update: BPX has successfully implemented an LDAR program on site
4.4 - SelechVysv1Xs June 2019 Update: Solar pump installations were completed (246 installations
4.2 - ReplV9zESbZ_June 2019 Update: All high bleed controller replacements located at wellsites f
4.1 - EvalrCpCy8nU June 2019 Update: BPX evaluated the use of zero emission solar heat trace pur
5.3 - BuilcozNZ8QH June 2019 Update: RC&E developing a presentation identifying significant OBO
2.12 - UpIOzT65Pv June 2019 Update: On track. An updated Facility Design Manual has been draft
14.3 - DevLXH3d_yII The SLL and Executive Methane Education Programme will be delivered via the
2.11a Ad3qOE3Nv The Guides (12-15 pages) for the 8 Reducing Methane Emissions Best Practices
2.8a Upd8y8gzoZk Russell Smith requested that this action be postponed to end 3Q 2019 at the la
8.2 - DeveTHUJmu7 Meetings held with SLB in March 2019, and further meetings planned with Exp
11.6 - Devg6E2fZxQ To confirm we have decided to focus on communicating BP technology trials as
2.10 Cons0vyTsVGe Power from Shore has been further progressed, with credible options available
1.1 DevelY3hTRWR Included in the new Cat C digital projects tool which is currently being deploye
1.10 Deliv6wLIKvF0I Upstream have delivered ~2.5 Mte of SERs to end 1Q 2019 with a further ~0.5
3.3 RevieF-17h471j Complete - see attached slides provided as part of related Meeting Action to "(
3.3 RevieF-17h471j Hi Gardiner - is this action now complete following the update provided at the
13.4 - DevW4Br gbZic More challenge and \$100M fund successfully launched. Low Carbon category
15.2 - ReveyPolT4o (Action completed as surveys now received from North Sea. Recommend a foll
10.3 - RevJ7Mxq0xC Closing action as per Sonna's comments - would be helpful to get update on hc
2.3 - Asse2I9UN1ilz Action 2.2 now complete. This action has now been initiated. Stuart Lodge and
2.2 ReviejzgFZbyYil Latest data received from GOO and reviewed. Summary in attached PowerPoir
ACTION 1 MMhnyjlf The Methane Emissions Policy attached will be replaced by the IMWG Methan
14.5 - DevJkqkUnEIs May 2019 Update: Townhalls and other all employee meetings - discussions or
12.5 - BuilWn527_J May 2019 Update: Completed the study of malfunctioning intermittent contro
9.3 - ImplthLECEnd May 2019 Updates: Implemented LDAR program on sites that will be divested

5.3 - BuilcozNZ8QH: May 2019 Update: Reviewed OBO GHG reports and identified the largest reduction

2.12 - UpclOzT65Pv: May 2019 Update: An updated Facility Design Manual has been drafted and is

3.1 Agree 2bVuFWy: Angola PSVM LPGC re-alignment work package was completed on the 3rd May

8.5 - RepzUdkcPZ5C- PSVM: Vendor BHGI is on schedule to arrive on PSVM on Monday the 13th of

5.5 - Devch7huMKa: Gordon

5.5 - Devch7huMKa: Sent from my iPhone

5.5 - Devch7huMKa: Update from Chris Mawer - I am pleased to inform you that at the Rosneft Bo

6.2 - IdenECT4sN9l: The framework MSA is at the final stages of agreement between BP and Xpans

ACTION 7 28ClwfO7: Refer to monthly reports (attached) for details

Plan an U 6qiOkzbA: The Upstream Carbon Workshop was held on Wednesday 24th April, 2019 and

7.3 - DelivdFtyhKj_r: Proposal circulated reviewed and updated.

2.2 ReviewjzgFZbyYil: GOO Methane Survey data is taking longer to collate than planned. Review wit

2.3 - Asse2l9UN1ilz: GOO Methane Survey data is taking longer to collate than planned. Review wit

Create a cNWmD3rl2: slides to illustrate options and relative cost and impact on emissions

2.10 - GFFEuabM34: GHG operational performance data specifications (note - not relevant to ICE produ

2.9 - Enga3Bt7cTzQ: GHG operational performance data specifications (note - not relevant to ICE produ

14.2 - IdeiuT9N3vXy: This action identified the target audience within the Upstream GLL and SLL po

3.2 DevelrMA1q0_vl: It has been agreed that this document will now take the form of an Upstream I

2.5 - Benc7bnxEeTn: Extending this action out to end 3Q to allow time for completion. Activities unc

11.8 - RurvemM-mj: The methane emissions showcase will now take place on 9 September in Sunb

11.6 - Devg6E2fZxQ: We have deprioritised this in favour of promoting BP's own technology trials ar

11.3 - ProrworgEhu: The final methane round table in the series will take place in Brussels on 29 Ap

11.2 - CrebQCpGX_ The methane emissions tech showcase on 9 September in Sunbury will include

11.1 - DeřM5XZZ7A: Bernard Looney took part in a methane-specific panel at CERA Week. He will sp

8.5 - RepzUdkcPZ5C: Note update from Roger Boyce on flare meter improvements with anticipated

11.5 - AnreasfgfcW: The emissions tech showcase event for media will take place on 9 September in

8.5 - RepzUdkcPZ5C: GtP work planned for offshore execute 11th- 18th April, PSVM work planned fo

Consider idGiPnJsXc: Confirmed alignment at this stage of the project with Shell

5.5 - Devch7huMKa: The working group within Rosneft continue to evaluate the implications of sign

2.2 ReviewjzgFZbyYil: Get Outlook for iOS

2.2 ReviewjzgFZbyYil: Moved due date from end of April to end of June due to delay in GOO methane

2.10 - GFFEuabM34: This activity is now effectively enduring. It is now a case of continuing to embe

2.9 - Enga3Bt7cTzQ: This activity is now effectively enduring. It is now a case of continuing to embe

2.2 ReviewjzgFZbyYil: Requires completion of latest methane surveys by GOO, which are now due by

2.7 EvaluzTLzsXjdW: Propose this ongoing action be closed out following a presentation to the Carb

8.2 - DeveTHUJmu7: Integration meetings held with GOO and upstream technology about flare camera

1.7a Trial mPTH4kl: The first green completion in Oman was started on KZN 402 on 26 February 2019.

7.5 - DeveskbfbwSb: Continuous is interpreted at this point as frequent revisits to a particular site to

Consider :APfizzkkeq: Work ongoing to define governance process, but will simply be called the "Upst

7.5 - DeveskbfbwSb: High level plan including scope and funding developed and waiting for peer rev

7.3 - DelivdFtyhKj_r: Draft proposla attached

2.11a Ad3qOE3Nv: Reducing Methane Best Practices poster attached for reference.

2.11a Ad3qOE3Nv: The 2019 Work Program proposal to develop an Implementation Plan for the R

15.7 - DevZ9IGWqh: Initial draft updated following SME feedback

2.8 - Defirxb51ic-rs: (An update to the last comment below... A second action, 2.8b, will now not be

1.10 Deliv6wLIKvFO: Preliminary 2018 full-year data shows Upstream will have delivered between 1

1.2 EvaluatMqFTFBkIWe have successfully completed testing of the Providence Mantis camera for mea

1.5 Pilot r2AR-U8EF2 successful trials of FLIR camera quantification technology (QL320) completed

2.8 - Defirxb51ic-rsCThis is being closed and superseded by two actions. The first of these actions h

2.8a Upd:8y8gzoZkA comment has been raised against the Appraisal Management Guide in the p

2.6 - Revir0kqRB93XReview complete. Low emissions equipment will not be added to JIP33 per se,

2.4 - Revir-8Jq-LVPbBP will request the technical work fronts identified are included on the next IO

2.7 Evalu:TLzsXjdWThe Tortue Phase 2/3 reference case continues to be standard offshore SCGT c

6.1 - Revir2d3O8nThe review of current portfolio is complete. We are now working on next steps

5.5 - Devch7huMKa • The details of the Methane Guiding Principles (MGP's) have been sent to Rosnef

15.2 - ReveyPolT4o(Survey responses received from AGT, Angola, AsPac, Oman and Trinidad. Prelir

9.1 - DefirJ6MeGI_6Due date extended to end 2Q 2019 to allow for time to incorporate learnings f

8.1 - EvalilQUjpU1rPlan in place to deliver by 3Q 2019 - due date amended to 30/09/2019

7.5 - DeveskbfbwSbHigh level plan in the process of being developed with input from Peter Evans :

7.3 - DelivdFtyhKj_rA proposal has been created to recommend to BP the current preferred drone

7.1 - DeveyAEdyL7aDecisions on the DIO/BPX joint plan have been deferred whilst BPX focuses on

2.11 - LeaSwVU6V8The Reducing Methane Best Practices and associated 2019 Implementation Pla

15.5 - EnsnTzKhLAGL48 RC&E will hold a meeting with L48 Operations in 1Q 2019 to discuss additic

14.5 - DevJkqkUnEIsA L48 communication plan on carbon is set for 2019, and a L48 carbon intranet

13.3 - DevHxvtcMRyA L48 internal methane communication plan aligned with Segment's communi

12.5 - BuilIWn527_JContinuing the study of malfunctioning intermittent controllers in Colorado wi

9.3 - ImplthLECEndThe L48 has a LDAR recommendation to achieve the 100% of production LDAR

7.4 - LeakcpShPtO_L48 has a LDAR recommendation based on completed trials that will be review

5.3 - BuilcozNZ8QH.Brainstorming options to complete this task.

4.5 - Use rRfoz1MV(Potential crowd-sourcing and other creative solutions to the pneumatics and d

4.4 - SelechVysv1XsSolar pump installations are underway (244 installations of 250 as of Decembe

4.3 - ComYVDe9fUCFunding approved for a portion of Solar Heat Trace Pump Project. Solar pump i

4.2 - ReplV9zESbZ_All high bleed controller replacements located at wellsites have been complete

4.1 - EvalrCpCy8nUReplacement of gas pneumatic heat trace pumps with zero emission solar heat

2.12 - UpcIOzT65PvJan 2019 Update: Revise L48 (now BPX) FDM to incorporate methane reducing

1.7a Trial mPTH4kIsSite integrated tests of equipment likely to occur in early February to allow for de

8.2 - DeveTHUJmu7Terms of reference to outline approach drafted and out for review.

15.9 - Wo6LxEZsmfThe timeline needs to reflect this is a detailed effort spanning a long period of

15.10 - WJsRw7reDAs per comment on the 21/11 this specific action is either complete or needs t

15.8 - WoMnxKctF4Action completed based on the update provide don 22/11 and assuming the al

15.7 - DevZ9IGWqhComments received from several SMEs on the draft 2-pager and now collating

14.4 - Dev7PJwpva_Working with OMSA team on the "Alpha" script with view to finalising in late J

14.1 - DevbtriXH3svAction complete

1.2 Roll oISHkDSqE-Action completed: revised EEM GN-33 process issued in December 2018: The a

Carbon akIHBXLO0CComplete and the FM is now with Gordon and will be shared with UET during t

3.2 DevelryMUETgwADPs and Regional Development Plans now require GHG data. Identification of

2.10 Cons0vyTsVGe07/01/2019 Update: A study has been completed on AC vS DC power in the ev

7.10 - IdeiHL_ddE6lKey locations for testing and first generation deployment have been identified

7.9 - FinalWZENcGyAll processes for delivering technology needs for methane management are nc

7.6 - IdenoF9Cluq5We have successfully completed testing of the Providence Mantis camera for n

7.11 DeveJ6eVqt8NVision statement to be finalised at the 22Jan meeting

8.5 - RepzUdkcPZ5CUnfortunately we have seen slippage on both assets associated with contract i

ACTION 1 GI2T_-KC2018 plan delivered. 2019 plan in development and will run throughout the year.

2.11 - LeaSwVU6V8Reducing Methane Best Practices have been agreed by the Methane Guiding Principles

3.2 DevelopMUETgw31st December Update: Progress made with bp confirmed as leading Transport

3.3 ReviewF-17h471jThe work is ongoing and I will provide an update at the next meeting

8.5 - RepzUdkcPZ5CBoth assets remain on track for completion by end Q1. I will re-test readiness

7.11 DevelopJ6eVqt8NDraft Vision statement and explanatory diagram attached

5.6 - DevelopDLW7JGoMethane forecast has been incorporated into overall Upstream GHG forecast

8.1 - EvaluateQUjpU1rfocus area proposed (UEC) & supported (GOO) to determine Upstream flare

3.1 DevelopJykq23fSaFinal document, Guidance Note 14 - GHG Governance, was published to the

3.1 Agree2bVuFWyDue date revised to mid-2019 to reflect current plan for FGR commissioning

2.8 UnderLYZTrQFoMarked as complete based on updates and agreement to create new ongoing

3.4 ImplementCGyokHG1Q19: COO/ HoF regional expectations communication; develop simple &

3.3 DevelopR-YODiNCcentral & frontline leadership behaviours, embedded processes and

3.2 DevelopMA1q0_vworking group to be defined to provide input into practice and process

2.8 UnderLYZTrQFoThe Engineering Study report has been finalised following comments from

1.5 Pilotr2AR-U8EFcovered by action 1.2 update

2.8 - Define51ic-rsInitial engagement with projects (e.g. Tortue Phase 2 and 3, Clair South, etc.)

2.10 Cons0vyTsVGeA Clair South Power from Shore (PFS) feasibility study has been kicked off

8.2 - DevelopTHUJmu7Initial strategy conversations held in 4Q 2018. Terms of reference will be

1.7a TrialmPTh4klsProject is on track for delivery in 1Q 2019. Engineering for the concept is

12.3 - AgrMLMfrJp\BP has strengthened its participation in API Environmental Partnership (EP)

12.2 - CreateDS9CjmQ2018 version of the US Methane campaign document complete. See attached

10.2 - Align8SWueUTReceived and analyzed Exxon's draft Policy Framework recommendation to

12.1 - CreateXPMEJ-PF- The Model Methane Regulation has been completed. Please refer to Chapter

3.1 Agree2bVuFWyBP Angola: PSVM LPGC was restarted between the 28th of August 2018 and

ACTION 7 28ClwFO7Please note - the end date for Action 7 has been updated to 31/12/2019 to

ACTION 7 28ClwFO7For full details of monthly progress please refer to attached reports. In the

7.1 - DevelopAEdyL7aDIO have developed a plan with BPX for combined ground, air and satellite

7.11 DevelopJ6eVqt8NWe are currently working with communications to hone the key components

2.6 - Review0kqRB93XThe proposed scope for the first phase of JIP33 scale up is in the process

2.5 - Benchmark7bnxEeTnPart of ongoing benchmarking activities under the GPO Focus Area on

10.1 - Reference6pFZICs\The IMWG process has been refreshed with a revised Terms of Reference

1.3 DevelopZytBSz9Ff- GHG Forecast now embedded in Group Planning Process to get Group

13.4 - DevelopW4BrGbZiThe cMore challenge is currently under development and still on track

2.7 EvaluateTLzsXjdWThe Tortue Phase 1 GHG emissions are forecasted at 9 million tonnes of

2.1 ConductFMcwQ9fOngoing benchmarking to strengthen emissions estimations in pre-GPO

2.11 - LeaSwVU6V8BP and Shell have prepared a joint 2019 Work Proposal entitled "Implementati

15.2 - ReviewPolT4o(The previous survey has been updated to improve on previous version and

1.10 Deliver6wLIKvFOTo end-3Q 2018 Upstream has delivered 1.48 Mte of SERs with a further

1.8 AssessfDJAOMTMembership of External Climate Initiatives is being revisited. Gardiner Hill

Plan an U6qi0kzbAInitial planning discussions have begun, currently working to identify resource

Agreed toPPudSLHsGreen Completions and Carbon Abatement Fund to be discussed at 6th

8.5 - RepzUdkcPZ5C28/11/2018 - spare probes ordered and expected for both GtP and PSVM

2.11 - LeaSwVU6V8The 2019 (Methane Guiding Principles) Work Proposal for developing an

2.11 - LeaSwVU6V8The 2019 Methane Guiding Principles Work Proposal for developing an

7.9 - FinalWZENcGyAll teams engaged in technology identification, trialing and deployment

7.6 - Iden'oF9Cluq5\Angolan test of the Mantis camera on track for mid-December. The camera has:

15.3 - CorYkyeKsdK\Action Complete - a methodology comparison has been completed for Tanggul

1.2 Evalu2MqFTFBk\The National Physical Laboratory has been engaged to provide guidance in the fin

14.5 - DevJkqkUnElSL48 HSE held meetings in November 2018 with key L48 stakeholders to discuss ho

12.5 - BuilWn527_JContinuing the study of malfunctioning intermittent controllers in Colorado with C

9.3 - ImplthLECEnd\L48 has successfully implemented an LDAR program on sites that account for 30%

7.4 - LeakcpShPtO_\L48 has a draft LDAR recommendation based on completed trials that will be revie

4.5 - Use rFoz1MV\Meetings held in late October 2018 by L48 HSE team and key L48 stakeholders to d

4.4 - SelechVysv1Xs\Solar pump installations are underway. L48 will continue to evaluate emission red

4.3 - ComYVDe9fUC\Funding approved for a porton of Solar Heat Trace Pump Project. Solar pump insta

4.2 - ReplV9zESbZ_\All high bleed controller replacements located at wellsites will be completed in 20

4.1 - EvalrCpCy8nUL48 began the replacement of gas pneumatic heat trace pumps with zero emis

2.12 - UpclOzT65Pv\25 Nov 2108 Update: Rick Urban met with L48 RCE team & facility engineering

2.12 - UpclOzT65Pv\Rick Urban met with L48 RCE team & facility engineering teams in November 2018

15.5 - EnsnTzKhLAG\L48 has developed a process to identify GHG data issues in L48's system of record

13.3 - DevHxvtcMRYA\L48 internal methane communication plan aligned with Segment's communicati

12.3 - AgrMLMfrJp\Joe Ellis, BPA, met with Eric Milito, API, in June 2018 to discuss how BP could assis

12.1 - CreXPMEJ-PF\The Model Methane Regulation has been completed. The Model Methane Regula

12.5 - BuilWn527_JContinuing the study of malfunctioning intermittent controllers in Colorado with C

15.8 - WoMnxKctF4\The OGCI public methane target has set the methodology for methane intensit

15.6 - Upc2PUJlo1J\After reviewing the recent updates to the reporting requirements, we found th

11.3 - ProrworgEhu\The third and final stakeholder roundtable of 2018 took place in Beijing on Tue

10.3 - RevJ7Mxq0xCThis action is superceded by a broader action looking at all climate / GHG initia

15.9 - Wo6LxEZsmf\OGCI is undertaking, via EDF and UN Environment, a series of independent me'

15.9 - Wo6LxEZsmf\The OGCI public methane target has set the methodology for methane intensit

14.1 - DevbtriXH3svThis is believed to relate the Group Leader Compass programme which include

14.4 - Dev7PJwpva_\This remains work-in-progress and is aligned to the Climate OMSA module. It is

15.7 - DevZ9IGWqh\Outline draft 2-pager prepared, awaiting final reviews, before being shared mc

15.10 - WJsRw7reDThis activity I part of the over-arching OGCI work in the methane space and is r

2.10 - GFtEuabM34Discussions are ongoing with suppliers during the scheduled PRMs clearly highl

2.9 - Enga3Bt7cTzQFurther assessment has been performed to determine the actual vs. theoretica

1.14 DeveidCldwxn\(\$100M fund agreed by Gordon and Murray on 2nd November 2018, work prog

8.5 - Rep2UdkcPZ5CApril 2019. Strategy for online removal agreed. Critical spares identified with d

8.1 - EvallIQUjpU1rFull review to be carried out 2H18/ 2019 across GOO & GPO

5.2 - Devel7PUIZmAon track

5.1 - DeveKbhRwJd_on track

3.4 ImplelCGyokHGion track

3.3 Develr-YODiNGscope GOO only; AOM input Oct

3.2 DevelMA1q0_vsection drafting assigned

ACTION 3 CCYYR84xGlen Lyon: FGR remains a key commissioning objective, but delayed from 3Q18

1.10 Deliv6wLIKvF0ISER paper: proabilisitc review shows 3.5Mte SER delivery (delivered 2016-18yt

1.5 Pilot r2AR-U8EFAngola (PSVM) flare efficiency trial scheduled Nov

1.1 DevelY3hTRWRinterim simple GOO hopper overview spreadsheet 1Q19

2.8 UnderLYZTrQFo Atkins report being reviewed and comments gathered from BP, Shell and Total

1.6 Evalu21PKqQV6-GtP Northern/ Southern line pressure optimisation to reduce flaring and increa

5.5 - Devch7huMKaOn the 24th April a Rosneft team attended a knowledge sharing session in SJS |

ACTION 7 28ClwfO7All projects in Action 7 remain on-track or have been completed. Highlights include:

- 7.9 - Final WZENcGyDetails of integrated working practises will be presented at the October Carbon
- 7.10 - IdeiHL_ddE6lAfter careful consideration by Downstream Technology the request from the vendor
- 7.6 - IdenoF9Cluq5Testing of the Providence Mantis system is scheduled to take place in the week
- 7.5 - DeveskbfbwSb Working with Peter Evans to ensure aligned with other methane plan actions/
- 15.5 - EnsnTzKhLAGL48 has developed a process to identify GHG data issues in L48's system of records
- 14.5 - DevJkqkUnEIsL48 held the first Methane Mindset Lunch and Learn in September. A L48 refract
- 7.3 - DelivdFtyhKj_rUpdate PoC completion date to 04/19 to permit adequate time to complete the
- 13.3 - DevHxvtcMRyA L48 internal methane communication plan aligned with Segment's communication
- 7.1 - DeveyAEdyL7aDiscussions ongoing with Peter Evans to develop scope and understand areas of
- 7.3 - DelivdFtyhKj_r11/10/18: Updated title to cover all types of methane sensor, OGI is just an example
- 9.3 - ImplthLECEndL48 has successfully implemented an LDAR program on sites that account for 3
- 7.4 - LeakcpShPtO_Leak detection and quantification trials are ongoing. Draft report in review. On
- 4.5 - Use rfoz1MVInitial discussion have taken place.
- 4.4 - SelechVysv1XsL48 will continue to evaluate emission reducing solutions and choose successful
- 4.3 - ComYVDe9fUCL48 began replacing NBU glycol pump in early October.
- 4.2 - ReplV9zESbZ_In 2000, L48 began swapping replacing high-bleed controllers with ones that are
- 4.1 - EvalrCpCy8nUL48 evaluated and successfully trialed solar pumps. L48 will continue to evaluate
- 12.6 - RecXS61wTozAfter review and with approval from Susan Dio, this action is being discontinued
- 12.5 - BuilIWn527_JIn progress, but for longer term delivery (2019 or beyond). BP and Industry focused
- 12.4 - HoSDFTCF7-CDelivered. High level actions include provide better clarity to the public around
- 12.3 - AgrMLMfrJpWithin API's CFR and Upstream committees, BP is supporting the Environment
- 12.2 - CreDS9CjmQThis is a living document. Document to be updated in November/December to
- 12.1 - CreXPMEJ-PFAAction re-opened on 10/2/18 in response to Oct 1 event in DC. The team is now
- 10.2 - Alig8SWueUTAction is being worked in close coordination with Sue Ford, in her capacity as a
- 2.7 EvaluateTLzsXjdWRob
- 1.2 EvaluateMqFTFBkl• Final testing of the Mantis VISR camera scheduled for w/c 19Nov on PSVM in An
- 2.8 - Defirxb51ic-rsInitial engagement session held with GWO in Oct 2018. Identified two specific
- 2.5 - Benc7bnxEeTnThe evaluation of GHG emissions including methane emissions for a development
- 2.4 - Revir-8Jq-LVPbAn initial review of OGCI, IPECA and other existing cross industry forums and in
- 13.4 - DevW4BrgbZzEmployee 'Get involved' challenge is still on track for implementation in 2019.
- 13.2 - Imfg4TN8plDThe Upstream methane employee communications plan has been implemented
- 11.8 - RurvemM-mVirtual press tour featuring immersive technology to showcase major projects
- 11.3 - ProrworgEhuDelivered second Methane Roundtable event in Washington 1 October 2018, a
- 15.2 - ReveyPolT4o(UEC Process Engineer (Francine Counsell) has been working to update the previous
- 15.3 - CorYkyeKsdKAn assessment of the differences between US and UK methodologies has been
- 2.11 - LeaSwVU6V8The final Methane Reducing Best Practices, and the new Draft Implementation
- 2.9 - Enga3Bt7cTzQAdditionally, the GFH 2019 AOP will include a section on Low Carbon Opportunities
- 2.10 - GFHEuabM34GRE PRMs are occurring during October. Low carbon opportunities have been
- 2.9 - Enga3Bt7cTzQGFH have written to and received responses from a number of targeted vendors
- 2.12 - UpdIOzT65Pv8th October Update: Working to incorporate methane reducing designs into the
- 2.10 Cons0vyTsVGeNew action added to plan as agreed at 5th September Upstream Carbon Steering
- 15.1 - Deven5GesiwA frame was developed - see attached - and circulated for comment / edit and
- 4.2 - ReplV9zESbZ_Robert, in preparation for when we will have replaced all high bleed controllers
- 11.5 - AnreasfgfcWWe are planning to execute this in Q1 now, via media announcements and via
- 3.1 Agree2bVuFWyGlen Lyon: FGR remains a key commissioning objective, but delayed from 3Q18

1.1 Development Workshops update: GoM now complete, North Sea reschedule 11th Oct, Egypt

1.6 Evaluation successfully implemented & stabilised - initially estimate a 45mmscfd reduction

9.1 - Definition Existing GOO Leaks & Seeps document to be reviewed and updated as necessary

8.6 - Development due date needs amending to reflect full workscope, and to follow-on/ align with

8.1 - Evaluation Scoping survey carried out 3Q18 & used to develop Flare meter uncertainty evaluation

3.3 Development Initial thinking to include flaring/ take similar approach as to production losses

3.2 Development Existing flaring documentation received from most regions - next step: to be reviewed

1.5 Pilot run UREFFUGITIVES: 1x QL320 (FLIR camera methane emission calculation software) being

15.5 - Ensuring KLAG 5th September Update: L48 has developed a process to identify GHG data issues

15.4 - L48 FME 3rd 5th September Update: The L48 RCE team conducted a peer assist with Upstream

14.5 - Development 5th September Update: L48 is currently planning meetings within HSE and the

13.3 - Development 5th September Update: A L48 internal methane communication plan aligned with

12.5 - Build W527_J Additional L48 Update: Continuing the study of malfunctioning intermittent control

9.3 - Implementation L48 has successfully implemented an LDAR program on sites that account for 3

7.4 - Leak capture ShPTO_ 5th September Update: Leak detection and quantification trials are ongoing. O

4.5 - Use of RFOZ1MV (5th September Update: Initial discussion have taken place.

4.4 - Selection Vysv1Xs: 5th September Update: Solar pump trial on NBU heat trace pumps was successful

4.3 - Commissioning 5th September Update: NBU glycol pump replacements will need a capital commissioning

4.2 - Replacement V9zESbZ_ 5th September Update: All high bleed controller replacements located at upstream

4.1 - Evaluation CpCy8nU 5th September Update: L48 evaluated and successfully trialed solar pumps. L48

2.12 - Upstream OZT65Pv 5th September Update: Working to incorporate methane reducing designs into

12.3 - Agreement MLMfrJp\1) Met with Erik Milito (API Upstream Committee) to understand status of API

3.2 Development MUETgw September 4th Update: Four CCUS projects underway, two capture CO2 from industrial

2.7 Evaluation TLzsXjdW I have also uploaded the Tortue phase 2 and 3 into the action tracker – as per email

5.4 - Development MoTHWiY The World Bank contacted BP on 27th Feb requesting our support and cooperation

2.4 Development ODY2zUtgGPO Carbon Principles Guide provides guidance for project teams to supplement

6.1 - Review m2d308n Initial discussions and introductions complete, next steps are to dig deeper into

7.1 - Development AElyL7a Currently in the next stage of planning and the outcomes from this will be used

7.5 - Development kbfbwSb This activity has not started, but will be informed by outcomes and results of 7

7.3 - Delivery FtyhKj_r DIO team are due to meet and develop a plan for this activity

7.2 - Commissioning dJGSiaITC DIO with support from L48 HSE and Wamsutter operational team completed final

11.4 - Levelling Lnh9u9c The Gas and Methane campaign plan sets out a number of ways to use BP's methane

11.1 - Development M5XZZ7A Developed key materials for WGC as part of the advocacy campaign to advance

11.3 - Project work Ehu Planning and delivery of US event (October 2018) and China (November 2018), B

2.10 - GFHEuabM34 For all Supplier PRMs that are conducted by GFH, a core requirement for the activity

2.9 - Engagement 3Bt7cTzQ GFH have identified GFH managed products that have associated potential for

2.2 Review jzgFZbyYI Initial results from flare imaging camera trials in Alaska conducted during April

2.2 Requirement YasDlpV0 "GN 47-061 is already codified in MPcp V5 - CLOSED "

2.7 Evaluation TLzsXjdW "The Tortue Phase 1 GHG emissions are forecasted at 9 million tonnes of CO2e

ACTION 7 28 ClwF07 An integrated plan has been developed for methane technical activity divided into

2.4 - Review 8Jq-LVPbBP is engaged with the following groups supporting the reduction of carbon emissions

7.6 - Identification F9Cluq5/A device has been tested (Providence Mantis) in Alaska that provides a practical final

2.8 UnderLYZTrQFo Study works cope with Atkins (on behalf of BP, Shell and Total) to appraise technologies

2.7 Evaluation TLzsXjdW Added attachment

2.2 Requirement YasDlpV0 Technology Catalogue to be updated with low carbon technologies (e.g. offshore)

2.2 Requirement YasDlpV0 Technology Catalogue to be updated with low carbon technologies (e.g. offshore)

2.1 Conduct ongoing benchmarking to strengthen emissions estimations in pre-GPO to evaluate

2.8 - Define initial engagement with projects (e.g. Tortue Phase 2 and 3, Clair South, etc.) on

2.5 - Benchmark part of ongoing benchmarking activities under the GPO Focus Area on Carbon Intensity

2.9 Using progress under GPO Carbon Efficiency Focus Area - Activities Q2 2019. Initial

14.4 - Develop Currently working with OSMA team to review the Group Leader methane video

14.1 - Develop Support provided to the Group Leaders training which includes a specific methane

15.9 - Work with OGCI is also working with distribution operators to better understand and support

15.10 - Work with OGCI focus has been on the methane intensity

15.9 - Work with OGCI on methane intensity methodology will support creating a

12.6 - Review Creating a list of tool capability requirements for this task, then will scan market

12.4 - Host event set for October 1 in Washington, DC. See link to document outlining the

12.2 - Create holistic methane campaign document that includes key messages, goals and

ACTION 1 milestones updates...all are in progress, some are already complete.

12.5 - Build Clarified that internally BP uses manufacturer-based emission factors and not

10.1 - Review Update from Dominic 29/08/2018: IMWG proposed process change socialised

1.3 Develop Update from Dominic 29/08/2018: plan shape GHG data has now been submitted

1.2 Roll out Update from Dominic 29/08/2018: remains work in progress subject to 1.1 final

12.1 - Create Methane model regulation framework finished and it has been reviewed by Ministry

10.2 - Align Action is being worked in close coordination with Sue Ford, in her capacity as a

2.11 - Lead Following detailed consultation and engagement, the final version of the Methane

2.6 - Review The scope of work for JIP 33 Phase 3 is still under discussion among the participants

2.7 - Review GPO Carbon Principles Plan - Section 7.4.3.5 – Start up and early operations (Start

2.1 Review GPO Carbon principles document has been updated and makes a specific state

5.6 - Develop Upstream equity GHG forecast has been built up to provide input to RCM and

7.10 - Lead Downstream have also been approached to test other aspects of this technology - with

7.8 - Lead A cross functional workshop was held in June to align processes and projects between

7.9 - Final integrated programme of activity linking technology teams (UT, GT and DICI)

7.7 - Complete full heat map of technical activities currently underway was completed in June

1.2 Evaluate The original tests of a VISR flare monitoring camera (Providence Mantis) have undertaken

15.3 - Conduct Note: IOGP are planning to conduct a comparison of different methane reporting

15.3 - Conduct Methane emissions reporting exchange held with Upstream HSE, Lower 48 and

15.2 - Review UEC resource will be used August - September 2018 to support delivery of this

7.4 - Lead Full milestone: Leak Detection & Quantification Trials: Continue current and prepare

9.3 - Implement Full milestone: Implement find and fix LDAR programme in L48: prioritized on

3.2 Develop June 5th Update: Action being progressed by Reservoir Development team. Initial

3.1 Develop June 5th Update: Agreed mechanism for inclusion of carbon intensity into FMs

2.9 Using June 5th Update: This action requires completion of action 1.2, above, to inform

2.8 Under BP, Total and Shell agreed to proceed to a consultant technical study on electrification

2.7 Evaluate June 5th Update: The updated operating GHG forecast (Gross) for Tortue 1A is

2.6 Consider Closed: One page position paper developed and issued outlining options and recommendations

2.5 Develop June 5th Update: Update Appraisal one-pagers – to include GHG total, carbon intensity

2.4 Develop June 5th Update: New FM format has been developed - GHG FM Governance

2.3 Conduct Closed: Use of the energy VIP is already a GPO requirement codified in the GPO

2.2 Require Requirement for projects to be developed in accordance with GN47-061 has been confirmed

2.1 Conduct June 5th Update: Implementation ongoing. Emissions benchmarking required

1.13 Identify • The top 10 NOJV emitters have been identified, these collectively account for

- 1.12 Com x1HD-Uq7Alaska Energy Review completed w/c 9th November (telepresence and Skype).
- 1.11 Gain j1dzhMhNo longer relevant. Superseded by RIC target of 3.5Mte (gross) RSRs by 2025.
- 1.10 Deliv6wLIKvF0June 5th Update: GOO delivered 0.82 Mte tonnes (gross basis) of SERs to the e
- 1.9 Seek cKD50T3HJune 5th Update: Decision retired after conversation with stakeholders.
- 1.8 AssesfDjA0MTkJune 5th Update: In consultation with Policy and Strategy it has been agreed th
- 1.7a Trial mPTh4klsProject is on track for delivery as per plan (first green completion trial by Q1 2019
- 1.7 Producyg9rIDmCompleted - see attachment
- 1.6 Evalu21PKqQV6New operating philosophy was implemented early in May eliminating circa 45 mm
- 1.5 Pilot r2AR-U8EFThe Alaska field trial of the methane quantification technology (FLIR camera + Pro
- 1.4 Evalu2LH2wk7rF1. L48 committed to reducing CO2e emissions by 700,000 MT CO2e between 2017
- 1.3 QuantvEaVUsdCCompleted - see attachment
- 1.2 Evalu2MqFTFBkJune 5th Notes: Fugitive emission quantification - Alaska field trial of Providenc
- 1.1 DevelY3hTRWR• RSR opportunities will be identified through regional carbon workshops (2018 U

PostedBy	PostedDate
Stileman, Tim	2019-09-02T08:49:19+00:00
Stileman, Tim	2019-09-02T08:35:50+00:00
Merryane, Stephanie	2019-08-30T09:53:26+00:00
Aitken, Campbell T	2019-08-29T23:03:21+00:00
O'Brien, Robert	2019-08-07T09:56:26+00:00
Moore-Bridger, Clare	2019-07-31T08:34:48+00:00
Moore-Bridger, Clare	2019-07-31T08:32:59+00:00
Moore-Bridger, Clare	2019-07-31T08:24:09+00:00
Cameron, Andy	2019-06-28T16:51:14+00:00
Pickard, Kate	2019-06-27T22:55:05+00:00
RagoonananJalim, Karen	2019-06-24T22:00:26+00:00
RagoonananJalim, Karen	2019-06-24T21:31:01+00:00
RagoonananJalim, Karen	2019-06-24T21:24:23+00:00
ZZGerard, Faye	2019-06-24T18:02:24+00:00
Stileman, Tim	2019-06-24T13:22:28+00:00
Stileman, Tim	2019-06-21T16:26:28+00:00
Stileman, Tim	2019-06-21T12:00:11+00:00
ZZGerard, Faye	2019-06-20T21:56:12+00:00
ZZGerard, Faye	2019-06-20T21:38:35+00:00
ZZGerard, Faye	2019-06-20T21:28:52+00:00
ZZGerard, Faye	2019-06-20T21:27:17+00:00
ZZGerard, Faye	2019-06-20T21:18:42+00:00
ZZGerard, Faye	2019-06-20T20:51:35+00:00
ZZGerard, Faye	2019-06-20T20:49:29+00:00
ZZGerard, Faye	2019-06-20T20:45:54+00:00
ZZGerard, Faye	2019-06-20T20:34:13+00:00
Ford, Susan J (Sunbury)	2019-06-19T16:32:37+00:00
Ford, Susan J (Sunbury)	2019-06-19T13:23:13+00:00
Kennedy, John	2019-06-19T06:27:19+00:00
Pickard, Kate	2019-05-20T09:28:35+00:00
Moore-Bridger, Clare	2019-05-14T09:24:43+00:00
Stileman, Tim	2019-05-13T16:06:55+00:00
RagoonananJalim, Karen	2019-05-12T23:33:59+00:00
O'Brien, Robert	2019-05-09T11:48:00+00:00
O'Brien, Robert	2019-05-09T11:43:24+00:00
O'Brien, Robert	2019-05-09T11:31:40+00:00
O'Brien, Robert	2019-05-09T11:27:09+00:00
O'Brien, Robert	2019-05-09T11:22:57+00:00
O'Brien, Robert	2019-05-09T11:21:50+00:00
Aitken, Campbell T	2019-05-08T09:22:45+00:00
Aitken, Campbell T	2019-05-08T09:21:02+00:00
RagoonananJalim, Karen	2019-05-08T09:05:53+00:00
ZZGerard, Faye	2019-05-07T22:55:47+00:00
ZZGerard, Faye	2019-05-07T22:52:15+00:00
ZZGerard, Faye	2019-05-07T22:50:59+00:00

Confidential

BPA_HCOR_00174420

ZZGerard, Faye	2019-05-07T22:49:08+00:00
ZZGerard, Faye	2019-05-07T22:46:17+00:00
de Susanne, Philippe	2019-05-07T11:55:29+00:00
de Susanne, Philippe	2019-05-07T11:53:45+00:00
Birrell, Gordon Y	2019-05-03T07:47:27+00:00
Mawer, Chris M	2019-05-02T18:28:41+00:00
RagoonananJalim, Karen	2019-05-02T18:19:41+00:00
Naik, Manish	2019-05-02T16:24:27+00:00
Evans, Peter	2019-05-02T12:27:49+00:00
RagoonananJalim, Karen	2019-05-01T15:56:58+00:00
Cameron, Andy	2019-04-29T10:58:36+00:00
Aitken, Campbell T	2019-04-23T12:29:33+00:00
Aitken, Campbell T	2019-04-23T12:26:36+00:00
Towns, Martin	2019-04-07T19:16:37+00:00
Stileman, Tim	2019-04-04T07:18:35+00:00
Stileman, Tim	2019-04-04T07:17:58+00:00
RagoonananJalim, Karen	2019-03-30T16:42:31+00:00
RagoonananJalim, Karen	2019-03-30T16:12:52+00:00
Stileman, Tim	2019-03-27T13:21:29+00:00
Moore-Bridger, Clare	2019-03-25T13:32:03+00:00
Moore-Bridger, Clare	2019-03-25T13:31:22+00:00
Moore-Bridger, Clare	2019-03-25T13:30:02+00:00
Moore-Bridger, Clare	2019-03-25T13:28:08+00:00
Moore-Bridger, Clare	2019-03-25T13:26:24+00:00
Werner, Matthew L	2019-03-25T12:47:39+00:00
Moore-Bridger, Clare	2019-03-25T12:06:23+00:00
Boyce, Roger	2019-03-12T07:15:55+00:00
Flores, Ariel D	2019-03-04T13:17:19+00:00
RagoonananJalim, Karen	2019-02-28T22:43:01+00:00
Stileman, Tim	2019-02-27T17:05:10+00:00
Aitken, Campbell T	2019-02-27T16:42:47+00:00
Stileman, Tim	2019-02-27T16:18:49+00:00
Stileman, Tim	2019-02-27T16:17:38+00:00
Stileman, Tim	2019-02-27T16:07:13+00:00
Stileman, Tim	2019-02-27T16:03:57+00:00
Pickard, Kate	2019-02-27T15:33:00+00:00
Pickard, Kate	2019-02-27T14:54:00+00:00
Tookey, Blaine R	2019-02-27T11:24:36+00:00
O'Brien, Robert	2019-02-26T13:52:09+00:00
Tookey, Blaine R	2019-02-25T11:03:24+00:00
Tookey, Blaine R	2019-02-25T11:00:51+00:00
Ford, Susan J (Sunbury)	2019-02-21T14:06:28+00:00
Ford, Susan J (Sunbury)	2019-02-21T14:04:31+00:00
Sathiamoorthy, Muhunthan	2019-02-04T16:19:05+00:00
Stileman, Tim	2019-01-28T08:53:31+00:00
O'Brien, Robert	2019-01-17T08:58:55+00:00

Confidential

BPA_HCOR_00174421

Evans, Peter	2019-01-17T08:49:59+00:00
O'Brien, Robert	2019-01-17T06:57:42+00:00
Stileman, Tim	2019-01-16T16:36:34+00:00
Stileman, Tim	2019-01-16T16:33:34+00:00
Stileman, Tim	2019-01-16T16:05:25+00:00
Stileman, Tim	2019-01-16T16:02:26+00:00
Stileman, Tim	2019-01-16T15:51:10+00:00
Naik, Manish	2019-01-16T13:20:11+00:00
O'Brien, Robert	2019-01-16T12:41:18+00:00
O'Brien, Robert	2019-01-16T12:39:49+00:00
O'Brien, Robert	2019-01-16T12:18:30+00:00
O'Brien, Robert	2019-01-16T12:17:13+00:00
Cameron, Andy	2019-01-16T09:49:42+00:00
Cameron, Andy	2019-01-16T09:48:32+00:00
Cameron, Andy	2019-01-16T09:45:29+00:00
Ford, Susan J (Sunbury)	2019-01-16T08:20:08+00:00
ZZGerard, Faye	2019-01-16T05:03:09+00:00
ZZGerard, Faye	2019-01-16T04:58:41+00:00
ZZGerard, Faye	2019-01-16T04:26:03+00:00
ZZGerard, Faye	2019-01-16T04:19:40+00:00
ZZGerard, Faye	2019-01-16T04:11:47+00:00
ZZGerard, Faye	2019-01-16T04:08:06+00:00
ZZGerard, Faye	2019-01-16T03:52:08+00:00
ZZGerard, Faye	2019-01-16T03:42:37+00:00
ZZGerard, Faye	2019-01-16T03:38:09+00:00
ZZGerard, Faye	2019-01-16T03:37:14+00:00
ZZGerard, Faye	2019-01-16T02:59:21+00:00
ZZGerard, Faye	2019-01-16T02:58:05+00:00
ZZGerard, Faye	2019-01-16T02:44:28+00:00
Pickard, Kate	2019-01-15T22:04:36+00:00
Pickard, Kate	2019-01-15T21:49:26+00:00
Sathiamoorthy, Muhunthan	2019-01-14T07:09:48+00:00
Sathiamoorthy, Muhunthan	2019-01-14T07:07:20+00:00
Sathiamoorthy, Muhunthan	2019-01-14T07:02:15+00:00
Sathiamoorthy, Muhunthan	2019-01-14T07:00:12+00:00
Sathiamoorthy, Muhunthan	2019-01-14T06:55:53+00:00
Sathiamoorthy, Muhunthan	2019-01-14T06:50:13+00:00
O'Brien, Robert	2019-01-11T10:48:39+00:00
O'Brien, Robert	2019-01-09T14:12:04+00:00
Wilford, Sarah	2019-01-09T08:26:16+00:00
O'Brien, Robert	2019-01-08T14:44:59+00:00
Evans, Peter	2019-01-08T13:34:39+00:00
Evans, Peter	2019-01-08T13:32:33+00:00
Evans, Peter	2019-01-08T13:31:04+00:00
Evans, Peter	2019-01-08T13:27:04+00:00
Boyce, Roger	2019-01-08T11:32:44+00:00

Shaw, Stephen	2019-01-07T16:49:10+00:00
Ford, Susan J (Sunbury)	2019-01-07T09:49:32+00:00
Smith, Martyn M	2019-01-03T11:32:28+00:00
Hill, Gardiner	2019-01-02T11:32:14+00:00
Boyce, Roger	2018-12-31T16:26:49+00:00
Evans, Peter	2018-12-18T09:28:10+00:00
O'Brien, Robert	2018-12-07T17:08:07+00:00
Wright, Dugald M.	2018-12-06T15:51:52+00:00
Cooper, Rob	2018-12-06T14:21:18+00:00
O'Brien, Robert	2018-12-06T12:41:33+00:00
O'Brien, Robert	2018-12-06T09:35:24+00:00
Wright, Dugald M.	2018-12-05T17:38:00+00:00
Wright, Dugald M.	2018-12-05T17:37:36+00:00
Wright, Dugald M.	2018-12-05T17:37:05+00:00
Wright, Dugald M.	2018-12-05T17:35:38+00:00
Wright, Dugald M.	2018-12-05T17:34:15+00:00
Olsson, Jenny CM	2018-12-05T14:42:38+00:00
Olsson, Jenny CM	2018-12-04T16:00:00+00:00
O'Brien, Robert	2018-12-04T09:30:44+00:00
O'Brien, Robert	2018-12-04T09:14:43+00:00
Alves, Nuno F	2018-11-30T21:14:30+00:00
Alves, Nuno F	2018-11-30T21:12:41+00:00
Alves, Nuno F	2018-11-30T21:10:33+00:00
Alves, Nuno F	2018-11-30T21:07:35+00:00
de Susanne, Philippe	2018-11-30T14:33:15+00:00
Evans, Peter	2018-11-30T10:00:13+00:00
Evans, Peter	2018-11-30T08:27:29+00:00
Evans, Peter	2018-11-30T08:18:17+00:00
Evans, Peter	2018-11-30T08:10:32+00:00
Olsson, Jenny CM	2018-11-29T16:36:36+00:00
Olsson, Jenny CM	2018-11-29T16:35:21+00:00
O'Brien, Robert	2018-11-29T16:31:04+00:00
O'Brien, Robert	2018-11-29T16:28:29+00:00
Walker, Marisa	2018-11-29T16:24:15+00:00
Olsson, Jenny CM	2018-11-29T15:21:40+00:00
Olsson, Jenny CM	2018-11-29T15:19:39+00:00
O'Brien, Robert	2018-11-29T08:02:36+00:00
O'Brien, Robert	2018-11-29T08:01:55+00:00
O'Brien, Robert	2018-11-29T08:01:07+00:00
O'Brien, Robert	2018-11-29T08:00:50+00:00
O'Brien, Robert	2018-11-29T08:00:29+00:00
O'Brien, Robert	2018-11-29T08:00:20+00:00
de Susanne, Philippe	2018-11-28T15:15:17+00:00
Ford, Susan J (Sunbury)	2018-11-28T11:56:53+00:00
Ford, Susan J (Sunbury)	2018-11-28T11:55:45+00:00
Evans, Peter	2018-11-28T10:42:37+00:00

Evans, Peter	2018-11-28T10:36:11+00:00
O'Brien, Robert	2018-11-27T12:20:52+00:00
Evans, Peter	2018-11-26T14:23:18+00:00
ZZGerard, Faye	2018-11-26T04:40:52+00:00
ZZGerard, Faye	2018-11-26T04:38:52+00:00
ZZGerard, Faye	2018-11-26T04:29:33+00:00
ZZGerard, Faye	2018-11-26T04:25:15+00:00
ZZGerard, Faye	2018-11-26T04:22:17+00:00
ZZGerard, Faye	2018-11-26T04:20:33+00:00
ZZGerard, Faye	2018-11-26T04:18:20+00:00
ZZGerard, Faye	2018-11-26T04:11:29+00:00
ZZGerard, Faye	2018-11-26T04:03:53+00:00
ZZGerard, Faye	2018-11-26T03:50:36+00:00
ZZGerard, Faye	2018-11-26T03:46:44+00:00
ZZGerard, Faye	2018-11-26T03:34:11+00:00
ZZGerard, Faye	2018-11-26T03:31:25+00:00
ZZGerard, Faye	2018-11-26T03:24:35+00:00
ZZGerard, Faye	2018-11-26T03:10:27+00:00
ZZGerard, Faye	2018-11-26T03:05:35+00:00
Sathiamoorthy, Muhunthan	2018-11-22T14:58:33+00:00
Castano, Alejandra	2018-11-21T16:18:08+00:00
Moore-Bridger, Clare	2018-11-21T15:02:02+00:00
Sathiamoorthy, Muhunthan	2018-11-21T09:16:29+00:00
Sathiamoorthy, Muhunthan	2018-11-21T09:05:39+00:00
Sathiamoorthy, Muhunthan	2018-11-21T08:58:51+00:00
Sathiamoorthy, Muhunthan	2018-11-21T08:50:07+00:00
Sathiamoorthy, Muhunthan	2018-11-21T08:47:28+00:00
Sathiamoorthy, Muhunthan	2018-11-21T08:45:47+00:00
Sathiamoorthy, Muhunthan	2018-11-21T08:44:24+00:00
Corbally, Jim	2018-11-20T17:41:58+00:00
Corbally, Jim	2018-11-20T17:39:51+00:00
O'Brien, Robert	2018-11-09T09:11:36+00:00
Wright, Dugald M.	2018-10-16T07:22:08+00:00
Wright, Dugald M.	2018-10-16T07:21:32+00:00
Wright, Dugald M.	2018-10-16T07:19:14+00:00
Wright, Dugald M.	2018-10-16T07:18:45+00:00
Wright, Dugald M.	2018-10-16T07:18:06+00:00
Wright, Dugald M.	2018-10-16T07:17:50+00:00
Wright, Dugald M.	2018-10-16T07:17:19+00:00
Wright, Dugald M.	2018-10-16T07:16:40+00:00
Wright, Dugald M.	2018-10-15T12:20:19+00:00
Wright, Dugald M.	2018-10-15T12:19:18+00:00
Wright, Dugald M.	2018-10-15T12:18:28+00:00
Wright, Dugald M.	2018-10-15T12:17:10+00:00
Wright, Dugald M.	2018-10-15T12:15:15+00:00
Mawer, Chris M	2018-10-12T14:51:49+00:00

Confidential

BPA_HCOR_00174424

Evans, Peter	2018-10-12T08:15:37+00:00
Evans, Peter	2018-10-12T08:08:24+00:00
Evans, Peter	2018-10-12T08:05:31+00:00
Evans, Peter	2018-10-12T07:56:33+00:00
Cameron, Andy	2018-10-11T15:41:53+00:00
ZZGerard, Faye	2018-10-11T15:41:08+00:00
ZZGerard, Faye	2018-10-11T15:40:10+00:00
Cameron, Andy	2018-10-11T15:38:50+00:00
ZZGerard, Faye	2018-10-11T15:37:36+00:00
Cameron, Andy	2018-10-11T15:36:18+00:00
Cameron, Andy	2018-10-11T15:32:58+00:00
ZZGerard, Faye	2018-10-11T15:29:02+00:00
ZZGerard, Faye	2018-10-11T15:28:04+00:00
ZZGerard, Faye	2018-10-11T15:26:55+00:00
ZZGerard, Faye	2018-10-11T14:59:09+00:00
ZZGerard, Faye	2018-10-11T14:57:44+00:00
ZZGerard, Faye	2018-10-11T14:54:30+00:00
ZZGerard, Faye	2018-10-11T14:48:53+00:00
Alves, Nuno F	2018-10-10T21:04:26+00:00
Alves, Nuno F	2018-10-10T21:02:06+00:00
Alves, Nuno F	2018-10-10T21:01:19+00:00
Alves, Nuno F	2018-10-10T20:59:57+00:00
Alves, Nuno F	2018-10-10T20:58:54+00:00
Alves, Nuno F	2018-10-10T20:55:50+00:00
Alves, Nuno F	2018-10-10T20:53:45+00:00
Kelly, Rob	2018-10-09T21:06:31+00:00
Evans, Peter	2018-10-09T12:22:12+00:00
Lulla, Amrita	2018-10-09T08:20:31+00:00
Lulla, Amrita	2018-10-09T08:11:49+00:00
Olsson, Jenny CM	2018-10-09T06:17:17+00:00
Walker, Marisa	2018-10-08T18:47:22+00:00
Walker, Marisa	2018-10-08T18:44:58+00:00
Moore-Bridger, Clare	2018-10-08T15:50:35+00:00
Moore-Bridger, Clare	2018-10-08T15:43:53+00:00
O'Brien, Robert	2018-10-08T14:49:30+00:00
O'Brien, Robert	2018-10-08T14:47:06+00:00
Ford, Susan J (Sunbury)	2018-10-08T14:31:51+00:00
Corbally, Jim	2018-10-08T14:25:38+00:00
Corbally, Jim	2018-10-08T14:21:42+00:00
Corbally, Jim	2018-10-08T14:19:34+00:00
ZZGerard, Faye	2018-10-08T13:15:13+00:00
O'Brien, Robert	2018-10-04T17:12:11+00:00
Sathiamoorthy, Muhunthan	2018-09-28T12:10:59+00:00
Moore-Bridger, Clare	2018-09-24T08:55:44+00:00
Moore-Bridger, Clare	2018-09-24T08:52:16+00:00
Wright, Dugald M.	2018-09-05T10:06:39+00:00

Confidential

BPA_HCOR_00174425

Wright, Dugald M.	2018-09-05T08:50:31+00:00
Wright, Dugald M.	2018-09-05T08:47:15+00:00
Wright, Dugald M.	2018-09-05T08:36:19+00:00
Wright, Dugald M.	2018-09-05T08:33:49+00:00
Wright, Dugald M.	2018-09-05T08:31:10+00:00
Wright, Dugald M.	2018-09-05T08:25:01+00:00
Wright, Dugald M.	2018-09-05T08:22:01+00:00
Wright, Dugald M.	2018-09-05T08:13:47+00:00
O'Brien, Robert	2018-09-05T07:58:08+00:00
O'Brien, Robert	2018-09-05T07:57:40+00:00
O'Brien, Robert	2018-09-05T07:57:12+00:00
O'Brien, Robert	2018-09-05T07:56:36+00:00
O'Brien, Robert	2018-09-05T07:56:04+00:00
O'Brien, Robert	2018-09-05T07:54:48+00:00
O'Brien, Robert	2018-09-05T07:54:10+00:00
O'Brien, Robert	2018-09-05T07:52:33+00:00
O'Brien, Robert	2018-09-05T07:52:02+00:00
O'Brien, Robert	2018-09-05T07:51:13+00:00
O'Brien, Robert	2018-09-05T07:50:44+00:00
O'Brien, Robert	2018-09-05T07:49:55+00:00
O'Brien, Robert	2018-09-05T07:49:25+00:00
Alves, Nuno F	2018-09-04T18:02:46+00:00
O'Brien, Robert	2018-09-04T17:55:43+00:00
Wilford, Sarah	2018-09-04T10:27:45+00:00
Ford, Susan J (Sunbury)	2018-09-04T07:23:07+00:00
Olsson, Jenny CM	2018-09-03T18:06:52+00:00
Naik, Manish	2018-09-03T17:22:29+00:00
Cameron, Andy	2018-09-03T17:00:44+00:00
Cameron, Andy	2018-09-03T16:58:19+00:00
Cameron, Andy	2018-09-03T16:55:05+00:00
Cameron, Andy	2018-09-03T16:52:47+00:00
Miranda, Isabel (HARVEY NAS	2018-09-03T15:05:08+00:00
Miranda, Isabel (HARVEY NAS	2018-09-03T14:44:06+00:00
Miranda, Isabel (HARVEY NAS	2018-09-03T14:37:13+00:00
Lulla, Amrita	2018-09-03T14:36:19+00:00
Lulla, Amrita	2018-09-03T14:33:30+00:00
Aitken, Campbell T	2018-09-03T14:15:04+00:00
Olsson, Jenny CM	2018-09-03T13:49:25+00:00
Olsson, Jenny CM	2018-09-03T13:47:41+00:00
Evans, Peter	2018-09-03T13:07:55+00:00
Paul, Ed	2018-09-03T10:21:06+00:00
Evans, Peter	2018-09-03T08:37:59+00:00
O'Brien, Robert	2018-08-31T16:06:38+00:00
Wilford, Sarah	2018-08-31T15:54:23+00:00
Wilford, Sarah	2018-08-31T15:51:13+00:00
Wilford, Sarah	2018-08-31T15:50:28+00:00

Wilford, Sarah	2018-08-31T15:42:05+00:00
Lulla, Amrita	2018-08-31T13:01:26+00:00
Lulla, Amrita	2018-08-31T12:11:46+00:00
Wilford, Sarah	2018-08-31T11:32:05+00:00
Sathiamoorthy, Muhunthan	2018-08-31T08:45:03+00:00
Sathiamoorthy, Muhunthan	2018-08-31T08:42:10+00:00
Sathiamoorthy, Muhunthan	2018-08-31T08:39:19+00:00
Sathiamoorthy, Muhunthan	2018-08-31T08:34:46+00:00
Sathiamoorthy, Muhunthan	2018-08-31T08:32:58+00:00
Alves, Nuno F	2018-08-30T13:46:26+00:00
Alves, Nuno F	2018-08-30T13:40:45+00:00
Alves, Nuno F	2018-08-30T13:32:28+00:00
Alves, Nuno F	2018-08-30T13:24:06+00:00
Alves, Nuno F	2018-08-30T13:20:22+00:00
O'Brien, Robert	2018-08-30T06:01:37+00:00
O'Brien, Robert	2018-08-30T06:01:09+00:00
O'Brien, Robert	2018-08-30T06:00:48+00:00
Alves, Nuno F	2018-08-29T17:44:03+00:00
Alves, Nuno F	2018-08-29T17:31:07+00:00
Ford, Susan J (Sunbury)	2018-08-29T17:11:28+00:00
Kennedy, John	2018-08-29T14:46:26+00:00
Olsson, Jenny CM	2018-08-29T12:26:48+00:00
Olsson, Jenny CM	2018-08-29T12:12:37+00:00
O'Brien, Robert	2018-08-28T15:37:53+00:00
Evans, Peter	2018-08-24T07:28:53+00:00
Evans, Peter	2018-08-24T07:17:00+00:00
Evans, Peter	2018-08-24T07:14:08+00:00
Evans, Peter	2018-08-24T07:10:40+00:00
Evans, Peter	2018-08-24T07:05:49+00:00
O'Brien, Robert	2018-08-14T11:44:57+00:00
O'Brien, Robert	2018-08-14T11:44:25+00:00
Ford, Susan J (Sunbury)	2018-08-14T11:30:28+00:00
Walker, Marisa	2018-08-06T14:48:55+00:00
Walker, Marisa	2018-08-06T14:46:05+00:00
O'Brien, Robert	2018-07-26T12:57:54+00:00
O'Brien, Robert	2018-07-26T12:57:11+00:00
O'Brien, Robert	2018-07-26T12:56:33+00:00
O'Brien, Robert	2018-07-26T12:55:46+00:00
O'Brien, Robert	2018-07-26T12:54:48+00:00
O'Brien, Robert	2018-07-26T12:53:21+00:00
O'Brien, Robert	2018-07-26T12:49:39+00:00
O'Brien, Robert	2018-07-26T12:44:11+00:00
O'Brien, Robert	2018-07-26T12:43:11+00:00
O'Brien, Robert	2018-07-26T12:42:32+00:00
O'Brien, Robert	2018-07-26T12:41:49+00:00
O'Brien, Robert	2018-07-26T12:40:58+00:00

O'Brien, Robert	2018-07-26T12:40:46+00:00
O'Brien, Robert	2018-07-26T12:40:36+00:00
O'Brien, Robert	2018-07-26T12:40:22+00:00
O'Brien, Robert	2018-07-26T12:40:05+00:00
O'Brien, Robert	2018-07-26T12:39:49+00:00
O'Brien, Robert	2018-07-26T12:39:29+00:00
O'Brien, Robert	2018-07-26T12:35:23+00:00
O'Brien, Robert	2018-07-26T12:35:05+00:00
O'Brien, Robert	2018-07-26T12:34:46+00:00
O'Brien, Robert	2018-07-26T12:34:18+00:00
O'Brien, Robert	2018-07-26T12:33:55+00:00
O'Brien, Robert	2018-07-26T12:33:38+00:00
O'Brien, Robert	2018-07-26T12:31:28+00:00