

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	20/10/2017 Am to PM	VISIT BY:	ALC
WEATHER:			
Time	Description		
	Overcast, dull, mild.		

Site operations

Work in hand	River Crane/Yeading Brook diversion gabions construction and east bank benching and reprofiling River Crane western side slope filling channel infill TAC completing steel works on WYBPM wing wall
---------------------	---

Observations

- 1) Hydrocarbon impacted water ingress flowing into the WGUC wingwall excavation.
- 2) Construction of the River Crane channel infill bund ongoing with 150mm layers being rolled 16 times (this number is higher than required by the specification). Approx 2.0m fill height above channel formation level.
- 3) Class 6A has been placed on part of diversion channel bed, material appears to not be natural and well-graded.
- 4) R.Crane/Yeading Brook new diversion channel east side has been benched, overfilled with Class 2C from Stockpile 10 and trimming in progress to 1v:3h. Trimmings being hauled and placed between Stockpiles 7 and 9 in lagoon. Raised concern with Brian (FM Conway that this was effectively filling in a gap between contaminated material in Stockpile 9 and uncontaminated material in Stockpile 7, however the trimmings couldn't be hauled directly to the River Crane infill bund area due to logistical plant movements.

Sampling and/or testing undertaken or observed

- 1) CGL undertook 12 No. Mexecon tests in River Crane channel infill bund on 13th layer. After rolling returned CBR values typically between 2% and 6% (approx. equivalent undrained shear strength Cu values of 46kPa to 138kPa. Two results adjacent to the western edge of excavation returned CBR values of 1.5%. CGL requested this strip be further compacted. Following compaction, retests confirmed CBR values >2%.
- 2) CGL took 5 bulk samples (2 from Stockpile 11, 1 from Stockpile 7, 1 from Stockpile 12, and 1 from Stockpile 13) for geotechnical testing to assess potential for reuse.

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

1) Suggest CGL site engineer visually monitors the channel excavation and side slope on a daily basis for observations on deterioration/instability during temporary exposure prior to benching/backfilling.

Correspondence requested by FMC

1) Mo (FM Conway) requested a statement from CGL on the suitability of site won material for use as Class 2 for the River Crane channel infill as there is insufficient Class 2 readily available to complete the channel infill. A. Curtis (CGL) issued email stating there is the potential for reuse of material from Stockpiles 7 and 11 (central section of stockpile only) based on a visual observation but that this would be subject to confirmation by geotechnical laboratory testing.

Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	23/10/2017 Am to PM	VISIT BY:	TWF
WEATHER:			
Time	Description		
	Overcast with occasional patches of light rain		

Site operations

Work in hand	WGUC wingwall excavation and cropping works River Crane/Yeading Brook diversion gabions/reno mattress construction River Crane western side slope benching and compaction TAC completing steel works on WYBPM wing wall CGL visit to main site to witness pile cropping works at EGUC
---------------------	---

Observations

- 1) Hydrocarbon impacted water ingress flowing into the WGUC wingwall excavation to the southeast corner was pumped into IBC units, water was black with a light hydrocarbon odour observed.
- 2) River Crane western bank and bund benching is complete. Battering of bench was underway to create 45 degree slope.
- 3) Yeading Brook section of River Diversion ready to be connected to main river diversion works. Following connection Class 6A material to be placed along base and soft and hard flood protection joined.

Sampling and/or testing undertaken or observed

- 1) CGL gathered two soil samples from Stockpile 12 and 13 for chemical testing to determine whether material is suitable for reuse.
- 2) Preliminary trial pitting to be undertaken within Flood Compensation scheme in order to confirm suitability of formation level both chemically and geotechnically.

Site Observation Report Form



Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

1) Need for empty waste water IBCs to be available at WGUC excavation.

Correspondence requested by FMC

Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	25/10/2017 Am to PM	VISIT BY:	TWF
WEATHER:			
Time	Description		
	Overcast with occasional sun and patches of rain		

Site operations

Work in hand	WGUC wingwall excavation and cropping works EYB wingwall excavation and cropping works River Crane/Yeading Brook diversion gabions/reno mattress construction River Crane western side slope batter and profiling TAC completing steel works on WYBPM wing wall
---------------------	---

Observations

- 1) CGL on site to undertake preliminary trial pitting across Flood Compensation Area to confirm formation level. Unable to undertake works as other activities on site delayed start of trial pitting. Re-scheduled for Thursday 26th October.
- 2) Hydraulic fluid leak occurred north of southern Yeading Brook coffer dam in area of ponded water. Hydraulic leak originated from 360 excavator during initial move in morning. Leak collected onto of ponded water surface with smaller spills located further back along Yeading Brook as 360 was driving to coffer dam. Spill kits were deployed to collect and control hydraulic fluid on water surface. Impacted water was pumped to IBC at Haul Road. Pump was located at crest of coffer dam, poor connections between pump pipes and pump cause secondary leak at pump. Spill kits deployed to pump area. Two 1000l IBCs were filled followed by scraping of the Yeading Brook base and removal of impacted soil to Lagoon. Sample of Yeading Brook channel to be taken following scrape to remove potentially impacted soil (26th October 2017).
- 3) Material excavated from EYBPM wingwall was sorted with 6F5 going to 6F5 stockpile area, beside WGUC pile mat, and natural alluvial arisings being stockpiled at Stockpile 10. CGL to sample additional arising to determine if material conforms to Class 2C.
- 4) Sheen was noted on ponded water within WGUC wingwall excavation. Algal bloom noted nearest canal, sheen potentially organic and hydrocarbon in origin. Sheen could be due to stripping of hydrocarbon from soils previously above water table, as water levels have risen.

Site Observation Report Form



Sampling and/or testing undertaken or observed

- 1) Four bulk samples and one chemical sample were obtained from EYB wingwall natural material stockpiled at Stockpile 10.
- 2) Single surface water sample obtained from ponded water within WGUC wingwall.

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

Site Observation Report Form



Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	26/10/2017 Am to PM	VISIT BY:	TWF
WEATHER:			
Time	Description		
	Overcast with occasional sun and patches of rain		

Site operations

Work in hand	WGUC wingwall excavation and cropping works EYB wingwall excavation and cropping works River Crane/Yeading Brook diversion gabions/reno mattress construction River Crane western side slope batter and profiling TAC completing steel works on WYBPM wing wall CGL trial pitting at Flood Compensation Area CGL visit to main site to sample 6N material
---------------------	---

Observations

- 1) Five trial pits were excavated along the toe of the Flood Compensation Area, north of Pump Lane. The trial pits encountered Topsoil overlying approximately 1m of sand and gravels with London Clay Formation present at approximately 1.5m to 2m bgl. CGL to issue logs and FM Conway to issue coordinates and levels for the individual locations to determine if clay was encountered at finished level. Samples were taken for classification and chemical testing.
- 2) Inspection was made at the location of the hydraulic leak on Wednesday. Sample of the soil was taken for chemical testing.
- 3) CGL visited main site to obtain sample of 6N material for chemical testing. A small volume of ponded water was noted within eastern corner of EGUC wingwall excavation. Water believed to be free historic foundations/brickwork within excavation side wall.

Site Observation Report Form



Sampling and/or testing undertaken or observed

- 1) Bulk and chemical samples taken from the trial pitting works.
- 2) Sample taken from the area of the hydraulic leak.
- 3) Sample of the imported 6N material taken for testing against import criteria.

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

Site Observation Report Form



Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	01/11/2017 <i>half day sampling only</i>	VISIT BY:	CRG
WEATHER:			
Time	Description		
07:15 to 12:30	Dry with clear spells of sunshine		

Site operations	
Work in hand	WGUC wingwall excavation and cropping works EYB wingwall excavation and cropping works TAC completing steel works on WYBPM wing wall CGL sampling River Crane channel silt CGL sampling EGUC 6N material
Observations 1) Six silt samples were taken at regular intervals along the redundant River Crane channel, the silt had been temporally pushed downstream against a placed soil dam near Bailey Bridge 1. The silt was approximately 1.0m deep and inaccessible on foot therefore an excavator was used to extract each sample and bring it safely to the bankside. 2) Two samples of 6N were also taken from the main site, this was stockpiled adjacent to EGUC. 3) Standing water in WGUCPM had a rainbow 'oil like' sheen to the surface and number of algae blooms. This broke up on contact and did not present any odour, therefore it is likely to be organic and bacterial blooms rather than hydrocarbon. Hydrocarbon impacted groundwater was observed to the deeper western end of the excavation though due to the water depth, closer access was not possible.	
Sampling and/or testing undertaken or observed 1) Chemical samples taken from the River Crane channel silt (RCCS). 2) Chemical samples taken from 6N stockpile adjacent to EGUCPM.	

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

FM Conway requested up to date copy of Material Management Plan.

FM Conway requested copy of SVR detailing Yeading Brook silting event when pumps were placed into the Brook disturbing the channel bed sediment. Environ highlighted this as a concern during the Environmental audit. CGL SVR highlights that the silting event had a minimal impact as this dissipated within two hours, subsequent lab results provided little indication that the localised silting event contributed to contamination of the water.

Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	02/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
07:15 to 12:30	Cold, dry and sunny with some intervals of cloud		

Site operations

Work in hand	WGUC wingwall excavation and cropping works Received permit to drain WGUC water into sewer, pumping works started Tree removal and extension to EYB wingwall excavation TAC completing steel works on WYBPM wing wall CGL completing ground and surface water sampling CGL sampling stockpile 16 for chemical (reuse) and geotechnical (material classification) analysis
---------------------	--

Observations

- 1) FM Conway are using a tanker to transfer standing water in WGUCPM into Pump Lane sewer, approximately 5 tank loads undertaken during CGL attendance lowering the water level by approximately 0.4mgb. The water contained algae blooms with areas of an organic based sheen.
- 2) CGL sampled stockpile 16, a total of four bulk bags were taken at regular intervals along the full length of the stockpile and a total of six environmental samples were taken in situ along the north and south facing banks of the stockpile. EYB wingwall excavation was extended following the felling of an imposing willow tree, arisings were added to the extreme eastern peak of the stockpile, some material was over spilling however contained within the boundaries of the membrane.
- 3) CGL raised concern that there is no pedestrian access into the lagoon complex despite ongoing monitoring works, the haul road was also unsuitable for road vehicles due to surface damage from heavy plant (Moxy) movement.
- 4) River Crane channel silt (black slurry) was pushed downstream of Bailey Bridge 1, earth dam placed in redundant channel under Bailey Bridge and downstream to retain silt. Arising of west bank adjacent to site entrance used. Silt is now 5-7m from the Yeading Brook - (old) River Crane intersection.
- 5) CGL undertook full monthly borehole groundwater and surface water sampling, tree surgeon contractor cleared access to boreholes outside of the hoarding.

Sampling and/or testing undertaken or observed

Six environmental samples of Stockpile 16

Four bulk samples of Stockpile 16 for geotechnical material classification

Full monthly ground and surface water sampling

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

Site Observation Report Form



Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	06/11/2017	VISIT BY:	ALC
WEATHER:			
Time	Description		
09:00 to 17:45	Mild, and sunny		

Site operations	
Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall Excavating River Crane hauling wet material to Stockpile 16 and backfilling and compacting dry material to R. Crane infill channel.
Observations	
1) R Crane channel excavation. Excavated topsoil on side slopes not being separated from excavated wet natural gravels and clay, and was windrowed alongside excavation. Drier gravel and clay was kept separate and placed directly back into channel infill in 150mm compacted layers using 1200kg padfoot roller with 8 passes in accordance with MCHW Specification Table 6/4. Two 150mm layers completed along 9m length from river diversion bund. Slip in granular lower half of slope (approx. 2m high x 5m long) on western side below car park adjacent to river diversion bund, with some water seepage noted. This area was excavated and replaced with compacted Class 2C as dug material to seal. 2) Topping up Stockpile 16 between Stockpile 7 and Stockpile 9 with wet natural material hauled from River Crane excavation to dry out before reuse. 3) Hauling mixed topsoil and natural gravel and clay from River Crane to seeded topsoil Stockpile 3.	

Sampling and/or testing undertaken or observed

CGL testing – 4 Hand Shear Vanes tests in River Crane infill (Class 2 C stony cohesive)

HSV1 40,40,38 / $C_u = 39\text{kPa}$

HSV2 52,49,35,46/ $C_u = 43\text{kPa}$ (Assume average of 49,35,46)

HSV3 54,56,60/ $C_u = 56\text{kPa}$

HSV4 60,56,48,48/ $C_u = 50\text{kPa}$ (Assume average 56,48,48)

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

FMC sought advice on which stockpiles to haul wet material and mixed topsoil/natural arisings to from R. Crane excavation.

Correspondence received from FMC

Anne (CGL) verbally advised FMC to place mixed topsoil/natural arisings (4 loads) to seeded topsoil Stockpile 3, and wet natural arisings to Stockpile 16 to dry before reuse. Anne (CGL) advised Ryan (FMC) of importance to ensure topsoil and natural arisings were excavated separately – this was adhered to thereafter.

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	07/11/2017	VISIT BY:	ALC
WEATHER:			
Time	Description		
09:00 to 17:45	Mild, and sunny		

Site operations	
Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall Excavating River Crane hauling wet material to Stockpile 16 and backfilling and compacting dry material to R. Crane infill channel.
Observations	
1) R Crane channel excavation. Excavating topsoil on side slopes hauling to Stockpile 3 seeded topsoil. Wet natural arisings to Stockpile 16 to dry before reuse, dry natural arisings windrowed alongside excavation and placed/compacted back into channel infill in 150mm layers using 1200kg padfoot roller with 8 passes in accordance with MCHW Specification Table 6/4. No further seepage of water from sides of excavation, or signs of instability noted. 2) Topping up Stockpile 16 between Stockpile 7 and Stockpile 9 with wet natural material hauled from River Crane excavation to dry out before reuse. 3) GUC west excavation. Shallow slip failures noted in side slopes in excavation of wingwalls, particularly at western ends of both wingwalls where slopes are slightly steeper due to insufficient space at the top to batter back owing to haul road at the top. The rest of the excavation side slopes are in fair condition with some minor shallow slip failures and spalling noted. Rainwater run off ponded in excavation has been dammed at western end of northwest wingwall which is softening the toe of the slope and exacerbating the slip failure.	

Sampling and/or testing undertaken or observed

CGL water sampling – 1 groundwater sample taken from GUC west (GUCWA W1) north west wingwall excavation for contamination testing.

CGL soil sampling – 1 geoenvironmental sample (R. Crane ES1) taken from the R. Crane natural arisings.

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Contaminated rainwater and canal water still in GUC east excavation. Potential contaminated water also collected in GUC east excavation (1 sample taken today and scheduled for testing).

Correspondence requested by FMC

- 1) Advice requested on stability of slopes in GUC west excavation. Anne (CGL) advised Steve (FMC) on battering back the steeper eastern ends of the wingwall excavations where there are slips. This can't be done at the moment as it would make the haul road too narrow at the top of the slope. Steve (FMC) confirmed the haul road is to be moved further back to enable battering back to a shallower angle. The remaining slope faces are satisfactory for short term stability. Regular inspection of the slopes for new slippages and tension cracking should be undertaken daily.
- 2) FMC requested CGL to complete testing tracker sheet and comment on Soil Management Strategy. Tom (CGL) responded on 7/11/17 and 8/11/17. Queries raised and discussion/agreement between TW (CGL) and Mark (FMC) on source of some stockpiles shown on Tracker sheet.

Site Observation Report Form



Correspondence received from FMC

Draft Soil Management Strategy (Fill to River Crane) and tracker sheet for stockpile soil sampling and testing received from FMC.

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	08/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
07:15 to 12:30	Cold dry overcast day, with some intervals of sunshine in the afternoon		

Site operations	
Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall Infilling of River Crane using stockpile 10 6N added behind EYB wingwall, compact in layers Redundant River Crane channel concrete break-up and placed with stockpile 11 CGL completing ground and surface water sampling including sample further upstream CGL sampling stockpile 16 for classification with Albury S.I.
Observations	
1) CGL completed a weekly ground and surface water monitoring round of all borehole locations and surface water samples of the Yeading Brook, an additional surface water sample was obtained further upstream of Yeading Brook (off site) and referenced FUYB; CGL were accompanied by Environ in line with health and safety requirements. The surface water discharge point behind the site compound was dry therefore not sampled. 2) CGL sampled an additional two bulk bags of stockpile 16, a good representative sample of the overall composition of the material was taken and submitted to Albury S.I. the same day for PSD wet sieve testing on a rapid turnaround, results due by close of the week. 3) Concern with overloading of stockpiles, the lagoon complex is well beyond its maximum holding capacity and still FMC continue to overload and double stack stockpiles. Stockpile 17 contains potentially hydrocarbon impacted material as this is combined with Stockpile 12. Material is over spilling onto the lagoon bund wall almost merging with stockpile 7 in the separate east lagoon. The material has been placed directly on to the natural bund wall where there is no membrane protection from possible leaching out, any possible runoff from seasonal rainfall can freely flow underneath the membrane edge into both the east and west lagoons. 4) An excavator was moving material on the top of stockpile 4, assumingly to push the stockpile further north to allow for the access to stockpile 16? Contaminated material was falling down the north facing slope of the stockpile and over-spilling the edges of the membrane onto the lagoon bund, again there is a risk of leaching contamination underneath the membrane and to the wider area north of the lagoon complex. 4) The Soil Management Strategy does not appear to show the correct location of stockpile 12, this was potentially hydrocarbon impacted arising from the WGUC pile cropping excavation and was temporally	

Site Observation Report Form



stockpiled on plastic lining outside of the lagoon complex against stockpile 13. Once Butek completed the lining of the third lagoon area and under the advice from Environ and CGL, stockpile 12 was moved into the lagoon, this is not shown on the latest SMS. Stockpile 12 has been combined with stockpile 17 in the third lagoon area.

Sampling and/or testing undertaken or observed

Two bulk samples of Stockpile 16 for geotechnical material classification, result due end of day 10/11/2017
Full weekly ground and surface water sampling

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Site Observation Report Form



Correspondence requested by FMC

Passport request by Trevor in line with Berkeley registration process

Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	10/11/2017	VISIT BY:	ALC
WEATHER:			
Time	Description		
09:00 to 17:45	Warm and dry in morning, overcast and cold in afternoon		

Site operations

Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall Infilling of River Crane and compacting using material from Stockpile 7 EYBWA Infilling and compacting in front of abutment with material from Stockpile 7 in afternoon. Stockpile 11 – Crushing and separating RC from R. Crane channel, reinforcement from concrete.
---------------------	--

Observations

- 1) R Crane backfilling and compacting with material from Stockpile 7. CGL undertook hand shear vane testing on compacted layer.

- 2) CGL sampled 4 bulk bags of stockpile 9, a good representative sample of the overall composition of the material was taken and is to be submitted to Albury S.I. on 14th November for PSD wet sieve testing on a rapid turnaround. Chemical testing has already been undertaken on Stockpile 9 which confirmed the material is suitable for reuse subject to exclusion of >125mm particle size.

- 3) Stockpile 7 excavation hauling to R. Crane infill and YB East Abutment (at front between abutment and YB River Diversion)

- 4) Excavation along stockpile boundary markers on east side of SP7 has exposed grey material approximately 2m below top of stockpile. This is the lower section of the stockpile which was derived from YB west pile mat arisings. Anne (CGL) confirmed chemical testing has classified this material from YB west pile mat as clean and suitable for reuse based on chemical test results.

- 5) Overspill of Stockpiles 3, 17 and 18 beyond lagoon membrane liner noted.

Sampling and/or testing undertaken or observed

CGL sampled 4 bulk bags from Stockpile 9 for psd classification.

CGL sampled 1 bulk bag from Stockpile 16 for psd classification.

CGL testing – Hand Shear Vanes tests in River Crane infill (Class 2 C stony cohesive)

HSV1 86,54, 55, 88,58 / Cu = 55kPa (Assume average of lower values 54,55, 58)

HSV2 87,73,62,70 / Cu = 68kPa (Assume average of 62,70,73)

CGL testing – Hand Sher Vane tests in infill between front of YP east abutment and River Diversion:-

HSV1 42,51,48/ Cu = 47kPa

HSV2 49,55,50/ Cu = 51kPa

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

Suitability for reuse of material from Stockpile 16 (beneath natural wet material on top of stockpile sourced from R. Crane excavation).

ALC (CGL) confirmed verbally to Brian, Mark and Mo (FM Conway) that test results for Stockpile 16 received today indicate the material in Stockpile 16 is suitable for reuse. Stockpile 16 is material from the trimming back of infill on the sides of the River Diversion and was sourced from Stockpile 10. On top of this are natural arisings from the R. Crane excavation which needs to be dried out before use. This wet material needs to be scraped back and allowed to dry before reuse. Grading results are expected on 20/11/17. Anne has taken 1 additional bulk bag sample to obtain a grading on a quicker turnaround from a different laboratory. However, based on a visible inspection of Stockpile 16 by CGL/FM (Conway) and previous grading results on similar material (Stockpile 10) the material is anticipated to be classified as class 2 general fill and therefore geotechnically suitable for reuse. Chris (CGL) confirmed the suitability of Stockpile 16 for reuse, by email, to

Site Observation Report Form



FM Conway on 10/11/17.

Correspondence received from FMC

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	13/11/2017	VISIT BY:	ALC
WEATHER:			
Time	Description		
09:10 to 17:00	Very cold and dry, overcast.		

Site operations	
Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall Infilling of River Crane and compacting using material from Stockpile 16 and as dug windrowed dry material excavated from the R. Crane.
Observations	
1) R Crane backfilling and compacting with material from Stockpile 16 and rest of Stockpile 7. 2) Stockpile 7 completely removed except for unsuitable material which has been placed at back on the lagoon liner 3) YB east infilling and compacting in front of abutment with material from Stockpile 7 completed. 4) Stockpile 16 hauling material to R. Crane. Stockpile excavation boundary markers have been erected adjacent to Stockpiles 5,6 and 9. 5) Overspill of Stockpiles 3, 17 and 18 beyond lagoon membrane liner noted.	
Sampling and/or testing undertaken or observed	

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

Derek (FMC) /Anne (CGL) Derek raised concerns regarding lack of communication and consistency between CGL and FMC. Current queries are:-

- 1) Stockpile 16 – email from Chris (CGL) on 10/11/17 confirmed material was suitable for reuse based on geoenvironmental testing but was not concise in saying it was suitable for reuse regarding earthwork classification. This was clarified in email from Robin (CGL) 14/11/17 stating psd gradings were due back on 20/11/17 but based on gradings undertaken on similar material Stockpile 16 was anticipated to be acceptable for reuse as Class 2.
- 2) New Haul Road – A new haul road is to be constructed and the Bailey bridge by the site offices removed to allow infilling of the rest of the R. Crane. FMC have asked CGL what testing needs to be done, if any, to approve the formation and imported material (Class 6F). CGL to advise.
- 3) Drerek requested CGL provide timely site records
- 4) Class 6N fill – Query on suitability due to exceedances in contaminants. Chris (CGL) responded on 13/11/17 to inform FMC the imported Class 6N was unsuitable and could not be risked out and is therefore unacceptable.
- 5) Flood Alleviation Scheme – Derek requested feedback on the trial pitting undertaken. Is the material suitable at formation level or will a cohesive layer be required, and will further trial pitting and inspection of formation be required? Tom (CGL) to provide feedback.

Site Observation Report Form



Correspondence received from

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	14/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
07:15 to 15:30	Very cold, sunny with cloudy intervals		

Site operations	
Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall Infilling of River Crane and compacting using material from Stockpile 16 CGL to complete full round of weekly ground and surface water sampling
Observations	
1) Full round of ground and surface water sampling undertaken, BH3A was inaccessible and left suspended in mid-air following the removal of stockpile 7, to be lowered to the new ground level. 2) Area of standing water at the mouth of the redundant River Crane had a hydrocarbon sheen to the surface and moderate hydrocarbon odour. Possible that known hydrocarbons in the black silt material held upstream are leaching out. This is a potential issue as there is a direct pathway into the Yeading Brook. Advised that an impermeable barrier is placed along the earth embankment or the black silt is transferred to the lagoon complex, water sample taken. 3) Stockpile 16 material removed from lagoon from the east working backwards towards the lagoon entrance, the boundary of stockpile 5/6 was established and hollow created, dark clay material encountered was added to stockpile 5/6 and not used as RC fill. 4) Stockpile 9 removal to commence tomorrow, full watching brief will be provided by CGL as this material overlays stockpile 4; concrete, rebar, plastic and geotextile will be removed. CRG provided briefing to groundworkers involved and boundary of stockpile 4 was defined, a 1m buffer was to be retained to avoid potential cross contamination. 5) Overspill of Stockpiles 3, 17 and 18 beyond lagoon membrane liner noted, no action has been taken. 6) Stockpile 16 fill material was placed in RC fill area at 150mm layers and rolled 4-6 times, depth was built to 0.3m below pump lane haul road ready to receive Type 1 layer.	

Sampling and/or testing undertaken or observed

Type 1 material was sampled for chemical suitability in FM Conway depot before being imported

Full round of ground and surface water samples taken with the exception of BH3A

Additional surface water sample taken of redundant River Crane channel after concerns of hydrocarbon leaching.

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Possible leaching of hydrocarbons from black silt material, advised to transfer material to lagoon or install impermeable barrier.

Correspondence requested by FMC

Derek (FMC) /Anne (CGL) Derek raised concerns regarding lack of communication and consistency between CGL and FMC. Current queries are: -

- 1) FM Conway requested email to confirm watching brief of stockpile 9 removal, CRG provided.

Site Observation Report Form



Correspondence received from

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	15/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
07:15 to 16:00	Cold, misty and damp day		

Site operations

Work in hand

TAG installing steelworks of WGUC wingwall
 TAG installing steelwork of EYB wingwall
 Infilling of River Crane and compacting using material from Stockpile 9
 CGL providing watching brief of stockpile 9 removal
 Trial pit in flood compensation area dug

Observations

- 1) Cohesive arisings in stockpile 7 were too wet to be used as RC fill, this was returned to the lagoon south of the remaining of stockpile 16 to dry out.
- 2) CGL provided a watching brief for the extraction of stockpile 9 from the lagoon, this took place simultaneously with the removal of stockpile 16, all arisings were used as RC fill. CRG removed concrete, pile straps, brick, rope, clinker, geotextile and plastic from the material and placed this with stockpile 4. Stockpile 9 was comprised of a silty gravelly clay. No visual or olfactory signs of contamination was encountered, and large foreign objects were removed. The boundary of stockpile 4 was easily identified as the stockpile was well settled, the surface was much firmer compared to the recently placed stockpile 9 material.
- 3) The first of three trial pits was dug in the River Crane flood compensation area (FCTP6) London Clay was encountered at 3.70mbgl from currently ground level. Borehole logs to be provided.
- 4) Suspended BH3A was cut back down to ground level (approximately 3.0m of pipe was removed), borehole groundwater was sampled and monitoring undertaken.

Sampling and/or testing undertaken or observed

Environmental samples of the Made Ground, Lynch Hill Gravels and London Clay taken from FCTP6

Groundwater sample from BH3A taken

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

London Clay level of FCTP6 communicated to Mark and Robin to update levels in line with EA meeting

Site Observation Report Form



Correspondence received from

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	16/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
07:30 to 15:45			

Site operations	
Work in hand	TAG installing steelworks of WGUC wingwall TAG installing steelwork of EYB wingwall, structural fill added Infilling of River Crane and new haul road area using material from Stockpile 9/ 16 Trial pits in flood compensation area dug Delivery of 6N, used to fill behind EYB wingwall, north section Delivery of Type 1, membrane placed in RC fill area and Type 1 added
Observations	
1) Remaining two trial pits in flood compensation area completed, London Clay encountered at similar depths (4.0 and 3.5mbgl) to first trial pit. Trial pits were logged, and environmental samples taken from each stratum. 2) Delivery of 6N material, stockpiled directly onto ground surface on EYB area, used as structural fill behind EYB wingwall. Material was a grey fine to medium grained sand with a strong chemical odour. 3) Delivery of Type 1 material, stockpiled adjacent to Pump Lane haul road and spread over compact fill from stockpile 16 and 9. Area to accommodate new haul road and site car park was built up to Pump Lane level with a thickness of approximately 0.4m. Type 1 was rolled 4-6 times at 150mm increments. 4) Watching brief to be provided by CGL tomorrow for the removal of the strut boxes in WGUC, CRG attended MESLEC safety brief covering crane lift operations. CRG concerned with the structural integrity of the canal and excavation banks with the risk of collapse and canal water ingress. CRG advised that the hollows on either side of the wingwall are backfilled before the strut boxes are lifted free to avoid possible collapse.	

Sampling and/or testing undertaken or observed

Environmental samples of the Made Ground, Lynch Hill Gravels and London Clay taken from FCTP7 and FCTP8

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Still no action on leaching hydrocarbons from black silt into redundant River Crane channel

Correspondence requested by FMC

London Clay level of FCTP7 and FCTP8 communicated to Mark and Robin to update levels in line with EA meeting.

Site Observation Report Form



Correspondence received from

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	17/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
08:00 to 15:30	Frosty start, cold sunny day		

Site operations

Work in hand	TAG installing steelworks of WGUC wingwall (eastern wing) MESLEC to remove strut boxed and backfill in front and behind TAG installing steelwork of EYB and backfilling behind wingwall Infilling of River Crane and new haul road area using material from Stockpile 11/16 Wheel wash dismantled and moved to new location
---------------------	---

Observations

- 1) CGL provided a watching brief for the removal of the WGUC strut boxes. CRG advised that the excavation was backfilled before the strut boxes were completely removed to avoid destabilisation and possible collapse of the canal bank. Clean arisings from stockpile 16 were used to backfill the front and imported 6N was used to backfill behind the wingwall. Strut boxes were crane lifted free from the clay prior to backfilling as they were well imbedded in the cohesive material. Backfill material was stockpiled in easy proximity in the event of water ingress. The clay arisings could quickly be used to plug water ingress should this occur. Backfill was placed using an excavator reaching over the strut boxes, material was placed at 150mm increments and compact using the remote-controlled roller at least 6 times. The first strut box was lifted free once approximately 1.0m of backfill had been placed, the bank remained stable with minor slumping of loose material observed.
- 2) Stockpile 11 now being used in the RC fill area, all concrete and rebar overlaying the stockpile was removed. The material was not placed in the area occupied by the new haul road and car park as Type 1 had been placed in this area.
- 3) CRG asked Mark to identify the survey boundary of stockpile 9 and the last remaining material (approximately 10 Moxy loads) were removed, Stockpile 16 and 9 have now been removed from the lagoon
- 4) Wheel wash dismantled and no in use, vehicles were hand washed using a pressure washer draining into existing gravel filled trenches temporally. Surface water drains appear to have been permanently blocked to prevent water ingress into the Yeading Brook.

Site Observation Report Form



Sampling and/or testing undertaken or observed

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Correspondence requested by FMC

Site Observation Report Form



Correspondence received from

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	22/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
08:00 to 15:30	Cold start, strong gusty winds, some sunny intervals but otherwise a cloudy day		

Site operations	
Work in hand	MESLEC removing strut boxes from WGUC and dismantling TAG installing steelwork of EYB Lagoon stockpiles have been tidied up and relabelled Infilling of River Crane and new haul road area using material from Stockpile 11 New haul road and car park in operation, concrete from Bailey Bridge broken up CGL to undertake weekly ground and surface water sampling
Observations	
1) MESLEC continue to remove strut boxes, water ingress from the canal appears to have increased and imported concrete has been placed to the western extent of the wingwall excavation. The wingwall is being backfilled before the strut boxes are removed to limit bank collapse and further water ingress. 6N has been used to backfill the back and clean arisings from stockpile 16 have been used to backfill the front. 2) Currently no wheel wash following the construction of the new haul road 3) CGL undertook a full ground and surface water monitoring round, each borehole had new tubing fitted and waterproofing to prevent water ingress between the standpipe and outer casing. The discharge point was again dry. 3) It is advised that the lagoon drainage trenches are drained as the water level appears to be high and may begin to stagnate. Water has not been extracted from the drainage trench since installation. 4) Stockpile 11 was used as River Crane fill material, concrete and rebar capping the stockpile was removed.	

Sampling and/or testing undertaken or observed

Full ground and surface water monitoring round completed

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Advised that water held in the lagoon drainage trenches is drained, testing of this will need to be undertaken before to establish suitable disposal

Correspondence requested by FMC

Correspondence received from

CGL require updated stockpile management plan following the removal of stockpiles 7,16 and 9 and movement in the lagoon and use of stockpile 11.

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	29/11/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
08:00 to 15:30	Bitterly cold day, overcast with freezing breeze		

Site operations	
Work in hand	WGUC strut boxes removed and excavation for remaining wingwall construction TAG pouring concrete of WYB abutment wall TAC continue steelwork of EYB abutment wall CGL to undertake weekly ground and surface water sampling, to include lagoon trench water for disposal
Observations	
1) Wheel wash not reassembled, now manually jet washing vehicles near site entrance, runoff flowing towards compound and not currently managed. 2) WGUC strut boxes removed and backfill in front of the wingwall of natural arisings from stockpile 16 have been compact well, only minor water ingress from the canal around incomplete section. 3) WGUC works to excavate and reprofile banks ready for construction of final wingwall section, arisings were observed to include dark dredged material and Minet Tip refuse, CRG advised that this should be stockpiled on existing contaminated soil stockpiles in the lagoon. 4) Stockpile 3 (seeded topsoil) has been reprofiled and material previously over spilling the membrane onto the lagoon bund has been pulled back. Fragments of membrane were observed on the surface of the reprofiled stockpile suggesting the membrane was damaged in the process. Stockpile 17 still overfills the membrane onto the lagoon bund. It has previously advised by CGL and Environ that the over spilling material should be moved clear of the membrane so to avoid the potential risk of runoff contamination leaching underneath the lagoon membrane. During the reprofiling of stockpile 17, it is vital that the membrane is not damaged given that this material is known to contain potentially contaminated soils from merged stockpile 12 material. 5) A full ground and surface water monitoring round was undertaken and included additional sampling of the lagoon drainage trenches. A sample was taken from each Lagoon Extraction Point (LEP 1 to LEP2) from the east and west lagoon to determine suitable disposal of the accumulated trench water.	

Sampling and/or testing undertaken or observed

Full ground and surface water monitoring round completed

Additional water sampling in Lagoon Extraction Points

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Advised that stockpile 17 still over-spills the lagoon bund and membrane edge and should be removed

Correspondence requested by FMC

Correspondence received from

CGL require updated stockpile management plan following the reprofiling of stockpiles in the lagoon area.

Site Observation Report Form



SITE:	Southall Western Access	JOB NO:	CG/28308
Date and time:	06/12/2017	VISIT BY:	CRG
WEATHER:			
Time	Description		
08:00 to 15:30	Cold day, overcast with light winds		

Site operations

Work in hand	WGUC construction of final wing wall section Reprofilling of lagoon stockpiles Removing overspill of stockpile 17 from lagoon bund TAC continue assemble of steelwork and shuttering of EYB abutment wall CGL to undertake weekly ground and surface water sampling FM Conway request chem and geotec sampling of EGUC fill and sample 6N
---------------------	--

Observations

- 1) Stockpiles in the lagoon have been reprofiled and height reduced to less than 4m. stockpile 17 was stepped back away from the membrane edge of the lagoon bund. The exposed membrane edge appeared damaged in a number of places. Material over spilling the membrane edge around the perimeter of the lagoon has been removed. Its advised that teeth are not used on excavators used to limit tearing.

- 2) Some areas of standing water or damp ground observed in the low-lying areas of the lagoon. It is advised that the drainage trench is emptied immediately on receipt of lab results (11.12.2017). Water accumulating in the trenches appears to be building up and could potentially overspill, particularly if we receive a spell of wet weather.

- 3) A full ground and surface water monitoring round was undertaken including all borehole locations and Yeading Brook.

Sampling and/or testing undertaken or observed

Full ground and surface water monitoring round completed

FM Conway requested chemical and geotechnical samples were taken of sample 6N material sourced from London Rock Group (new supplier) and from site won material used to backfill the front of EGUC wing wall. A total of 4 bulks and 4 chem samples were taken from each.

Ref: London Rock Group 6N (LRG6N)

Ref: East Grand Union Canal Fill (EGUCF)

Other comments and observations (ecological concerns? Water observations? Anticipated issues?)

Advised that a provision is made to capture runoff from the new boot cleaning station to avoid ingress into the discharge point

Correspondence requested by FMC