

By Alameda County Environmental Health 4:04 pm, Feb 02, 2016

January 28, 2016

Ms. Dilan Roe Site Cleanup Program Manager Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94501-6577

Subject: Dublin Apartments Permeable Reactive Barrier

Construction Completion Certification
Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California

Site Cleanup Program Case No. RO0003014

Dear Ms. Roe:

Enclosed please find a letter entitled *Dublin Apartments Permeable Reactive Barrier Construction Completion Certification* for the Former Crown Chevrolet North Parcel site at 7544 Dublin Boulevard, in Dublin, California (Site Cleanup Program Case No. RO0003014, GeoTracker Global ID T10000001616). This document was prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., on behalf of BWD Dublin LLC.

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please contact me at (408) 680-4938 or Avery Whitmarsh of Amec Foster Wheeler at (510) 663-4154 if you have any questions regarding this report.

Sincerely yours,

Pete Beritzhoff BWD Dublin LLC

Attachment: Dublin Apartments Permeable Reactive Barrier Construction Completion

Certification

January 28, 2016

Project OD14170800.02.4

Ms. Dilan Roe Site Cleanup Program Manager Alameda County Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94501-6577

Subject: Dublin Apartments Permeable Reactive Barrier

Construction Completion Certification
Former Crown Chevrolet North Parcel

7544 Dublin Boulevard Dublin, California

Site Cleanup Program Case No. RO0003014

Dear Ms. Roe:

Amec Foster Wheeler Environment & Infrastructure, Inc. ("Amec Foster Wheeler") has reviewed the *Completion Report, Permeable Reactive Barrier (PRB)* ("Construction Completion Report;" Attachment 1)¹ submitted by Magnus Pacific LLC. Amec Foster Wheeler hereby certifies that PRB construction at 7544 Dublin Boulevard, Dublin, California (the "Site") has fulfilled the requirements for quality that were presented in the technical specifications and design drawings ("Construction Documents") and the *Vapor Mitigation and Permeable Reactive Barrier Basis of Design Report* (Design Report).² This certification letter has been prepared pursuant to the requirements outlined in the Design Report and the *Construction Quality Assurance Plan* ("CQA Plan").³ The purpose of this letter is to certify the construction of the PRB only; a vapor mitigation system currently undergoing construction at the Site will be certified separately following its construction and commissioning.

The PRB construction consisted of a 147-foot-long trench excavated to approximately 30 feet below ground surface that was backfilled with a mixture of zero valent iron (ZVI) and sand treatment media and capped with a controlled density fill (sand cement slurry). The PRB was constructed by Magnus Pacific ("Subcontractor"), a subcontractor to the general contractor, ZCON Builders ("Contractor"), general contractor for the development project, on behalf of the owner, Dublin Apartments Properties LLC ("Owner"). Amec Foster Wheeler prepared the CQA Plan prior to PRB construction and implemented the CQA Plan during construction. CQA activities were performed by Mr. Douglas Bablitch, PE (CQA Manager and Design Engineer), and Ms. Hilary Nevis (CQA Engineer).

Amec Foster Wheeler staff was present at the Site during critical construction activities including, but not limited to, mobilization, construction layout, excavation, treatment media mixing, backfill placement, and PRB trench development. Amec Foster Wheeler CQA staff performed the following duties to satisfy the quality assurance requirements set forth in the CQA Plan:

Amec Foster Wheeler Environment & Infrastructure, Inc. 180 Grand Avenue, Suite 1100 Oakland, California 94612-3066 USA
Tel (510) 663-4100
Fox (510) 663-4101

Fax (510) 663-4141



Ms. Dilan Roe Alameda County Department of Environmental Health January 28, 2016 Page 2

- Reviewed the pertinent pre-construction submittals called out in the October 9, 2015,
 Dublin Apartments Pre-Construction Submittal Review for Permeable Reactive Barrier letter from Amec Foster Wheeler to Alameda County Environmental Health.⁴
- Participation in PRB pre-construction conference and other Site meetings with the Subcontractor, Contractor, and Owner throughout the construction duration.
- Performed audits of the Contractor Quality Control Plan⁵ ("CQC Plan") performance throughout PRB construction.
- Reviewed daily field memos and CQC Plan documentation, such as magnetic separation test results from samples collected before and during PRB media placement and ZVI/sand mixture weights per batch of PRB media.
- Reviewed and approved Magnus Pacific's Construction Completion Report (Attachment 1).

Amec Foster Wheeler hereby certifies that the PRB construction was performed consistent with the requirements of the Construction Documents. Deviations from the Construction Documents received approval from the Design Engineer, Contractor, and Owner, and are documented in Section 4.0 of Attachment 1. Photographs documenting construction activities are included in Attachment 2 of this letter.

Sincerely yours,

Amec Foster Wheeler, Environment & Infrastructure, Inc.

Louglas C. Bablitch

Douglas C. Bablitch, PE C64096

Principal Engineer Direct Tel.: 510.663.4169

E-mail: doug.bablitch@altrmecfw.com

Hilary Nevis, PE ¢85061 Environmental Engineer Direct Tel.: 510.663.4167

E-mail: hilary.nevis@amecfw.com

dcb/hn/smm - \\oad-fs1\doc_safe\17000s\170800\4000_regulatory\11cqa cert of ccr_012816\01 ltrs\draft_construction certification ltr_012616.docx

Attachments: 1 – Completion Report, Permeable Reactive Barrier

2 – Selected Construction Photographs

cc: Pete Beritzhoff, Bay West Development Tino Maestas, P.E., Magnus Pacific LLC Ms. Dilan Roe Alameda County Department of Environmental Health January 28, 2016 Page 3

Magnus Pacific, LLC., 2015. Completion Report, Permeable Reactive Barrier (PRB), Dublin Apartments – Crown Chevrolet North Parcel, 7544 Dublin Blvd, Dublin, California, November 5.

² Amec Foster Wheeler, 2015. Permeable Reactive Barrier Basis of Design Report, Former Crown Chevrolet North Parcel, 7544 Dublin Boulevard, Dublin, California, June 11.

³ Amec Foster Wheeler, 2015. Construction Quality Assurance Plan, Permeable Reactive Barrier, Former Crown Chevrolet North Parcel, 7544 Dublin Boulevard, Dublin, California, June 11.

⁴ Amec Foster Wheeler, 2015. Dublin Apartments Pre-Construction Submittal Review for Permeable Reactive Barrier, Dublin Apartments – Crown Chevrolet North Parcel, 7544 Dublin Blvd, Dublin, California, October 9.

Magnus Pacific, LLC, 2015. Contractor Quality Control Plan Permeable Reactive Barrier (PRB), Dublin Apartments – Crown Chevrolet North Parcel, 7544 Dublin Blvd, Dublin, California, October 8.



ATTACHMENT 1

Completion Report, Permeable Reactive Barrier (PRB)

COMPLETION REPORT

PERMEABLE REACTIVE BARRIER (PRB) DUBLIN APARTMENTS – CROWN CHEVROLET NORTH PARCEL

7544 DUBLIN BLVD, DUBLIN, CALIFORNIA

NOVEMBER 5, 2015

Prepared for:

PRIME CONTRACTOR
Zakskorn Construction Company
Dba ZCON Builders
780 West Grand Ave.
Oakland, CA 94612

OWNER
Dublin Apartment Properties LLC
2 Henry Adams St, Ste 450
San Francisco, CA 94103

Prepared by:

Magnus Pacific, LLC. 6558 Lonetree Blvd. Rocklin, CA 95765 Phone: (916) 462-6400



1.0

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Attachment M – Performance Warranty

1.0 INTRODUCTION

Magnus Pacific, LLC (Magnus) has completed the Permeable Reactive Barrier at the Dublin Apartments Project site in accordance with Technical Specification 025010 dated June 9th 2015, PRB Plan Drawings dated June 2015, Magnus Pacific PRB Project Execution Plan (Submittal No. 025010-0001.1) dated October 5th 2015, Magnus Pacific Contractor Quality Control Plan (Submittal No. 025010-0002.2) dated October 8th 2015, and approved project variations/deviations. This completion report provides a synopsis of the work and summarizes the quality control completed throughout the project.

1.1 Site Description

The Site was developed in 1968 as Crown Chevrolet, a car dealership with auto body shops, on land that appears to have been previously used for agricultural purposes. Operations as a car dealership and auto body shop continued from 1968 through 2013. The property was sold to BWD Dublin in the fall of 2014, and the site buildings were demolished in December 2014 in preparation for redevelopment.

The Site is located in the northwest corner of the intersection of Highway 680 and Highway 580 in Dublin, California bordered to the north by Dublin Boulevard, to the West by Golden Gate Drive, and to the South by St Patrick Way.

1.2 Project Overview

Site redevelopment is scheduled to begin in summer 2015. The redevelopment will include mixed residential/commercial buildings at the site, comprising 313 apartments (a total of approximately 323,000 gross square feet in multi-unit structures) and 17,000 square feet of retail space at ground level along Dublin Boulevard; some of the apartments will be located above the retail space. An approximately 230,000-square-foot parking garage is planned for the eastern central portion of the site.

The absolute and functional corrective action objectives (CAOs) for the site were established in the approved FS/CAP for the protection of human health and the environment and are listed in Section 2.2 of the Amec Foster Wheeler Design Report. To address the first CAO and mitigate the risk to future site residents from potential vapor intrusion of VOCs in soil vapor to indoor air, the FS/CAP recommended the installation of a PRB to treat impacted groundwater migrating onto the site.



The PRB consists of a trench installed along the up-gradient site boundary that was backfilled with a mixture of granular Zero Valent Iron (ZVI) and sand where natural hydraulic gradients adjacent to and beneath the site will cause PCE-affected groundwater to flow through the PRB to reduce Volatile Organic Compounds (VOC) concentrations.

The PRB design consists of the following elements:

- A 24-inch-wide, 146-foot-long continuous trench that is backfilled with ZVI/sand treatment media located near the upgradient site boundary along Golden Gate Drive.
- The PRB was installed to approximately 29 feet bgs, including a 1-foot key into an existing clay layer observed from approximately 28 to 30 feet bgs.
- The treatment media was prepared in a 55% / 45% ZVI/sand ratio by volume, creating an equivalent 1.1-foot-thick treatment zone of ZVI.

1.3 Project Milestone Dates

- 10/05/2015 Began mobilization and site setup.
- 10/12/2015 Began excavation of the biopolymer trench starting at Sta. 11+46.
- 10/13/2015 Began placement of Zero Valent Iron (ZVI)/sand media at Sta. 11+46.
- 10/15/2015 Completed excavation of biopolymer trench at Sta 10+00.
- 10/17/2015 Completed ZVI/sand backfill placement via 18-inch tremie pipe.
- 10/19/2015 Completed installation of the Controlled Density Fill (CDF) cap
- 10/26/2015 Began load-out of excavation trench spoils for T&D at Potrero Hills Landfill.
- 10/27/2015 Began discharge of wastewater to the Dublin San Ramon Services District (DSRSD) sanitary sewer.
- 10/28/2015 Completed load-out of excavation trench spoils for T&D at Potrero Hills Landfill.
- 10/29/2015 Completed discharge of wastewater to the DSRSD sanitary sewer.
- 10/29/2015 Substantially complete with Site breakdown and demobilization.



2.0 WORK DESCRIPTION

2.1 Permeable Reactive Barrier (PRB)

Magnus completed the construction of the Permeable Reactive barrier using the biopolymer slurry trench installation method using a Komatsu PC490 excavator equipped with a specialty long stick and a 28-inch bucket to excavate the trench. The trench alignment was staked-out by Carlson, Barbee & Gibson, Inc prior to excavation. The trench alignment was dictated by the planned layout of the curb and gutter where the eastern side of the PRB trench aligned with the future alignment of the gutter pan. When Magnus proposed 28-inch wide excavation versus the design width of 24-inches, the additional 4-inches of the PRB trench was shifted west or street side assuring that the eastern side of the trench was aligned with the gutter pan as originally designed.

A field variation in the trench alignment was made from Sta. 11+46 to Sta. 11+29 to straighten the design curve to within limitations of the excavator. AMEC Foster Wheeler provided design elevations for each 10-foot station increment for the bottom of the PRB. Magnus over-excavated from +0.5 to +1.8 FT deeper than the design elevation at as shown in the as-built profile. The vertical datum referenced in the excavation bottom elevations is NGVD29. Magnus excavated a total of 4,364 square feet using the biopolymer slurry trench method. The survey as-built and profile of the PRB is enclosed in Attachment A.

Magnus mixed a total of (44) 5.9-CY batches of ZVI/sand media and (1) 1.1-CY batch of ZVI/sand media that was backfilled and placed in the trench via an 18-inch tremie pipe. Additional ZVI was added to individual batches that did not pass initial magnetic separation test. Reference Section 3.0 for Quality Control testing of the ZVI and sand batch proportioning. Mixing of the ZVI/sand was completed using ready-mix trucks with batches consisting of 12,000lbs of zero-valent iron to 7,400-lbs of sand. This mix ratio by weight was derived by using measured bulk densities of each material performed by Geo-Logic Associates to convert the design iron equivalent thickness from volume to weight. The design ZVI to sand mix was 55% / 45% ZVI to sand by volume. For a 24-inch trench, the equivalent thickness of iron is 1.1 feet (at 55%). When Magnus proposed a 28-inch bucket, the designed equivalent thickness of iron is the same at 1.1 feet, however, the additional volume by the wider excavation is then accommodated by an increase in sand. For a 28-inch trench, the new design volume is 47% / 53% ZVI to sand by volume. Converting this volume using the measured bulk densities, the ZVI to sand batch proportioning is 62% Iron to 38% sand by weight. Pre-construction testing of the iron aggregate and sand included material gradations and bulk densities per each material and hydraulic conductivity per each material and as-mixed per the original design mix of 55% / 45% ZVI to sand by volume. The pre-construction test data is enclosed in Appendix B.



Table 1 – ZVI/Sand Design Proportioning

Trench Width	ZVI/Sand by Volume	ZVI/Sand by Weight
24-inches	55% / 45%	69% / 31%
28-inches	47% / 53%	62% / 38%

ZVI bags were pre-weighed and certified in 3,000-lb bulk bags as received from Connolly-GPM, which was considered an accurate weight. The Certificate of Analysis for the iron manufactured by Connolly-GPM are enclosed in Attachment C. Sand received from Silica Resources, Inc. was pre-bagged in 2,000-lb bulk bags, however, with a larger deviation of the actual weight. Magnus used portable scales to measure the weight of each bag of sand before loading into the ready-mix truck and the final balance of sand was metered by a vertical screw auger to ensure a consistent method of proportioning the sand. Water was added to the ZVI/sand mixture after loading of iron and sand into the ready-mix truck.

ZVI/sand placement was performed using the chute of the read-mix truck directly discharging PRB media into the hopper of the tremie pipe. The tremie pipe fall height was limited to no more than 5 feet of drop height. As the PRB backfill built up in the trench, the tremie pipe was moved horizontally down-station along the trench alignment. PRB backfill was placed to a minimum elevation of 331.0 feet NGVD29 as shown in the as-built profile. Magnus installed (6) 4-inch diameter re-circulation pipes spaced on 25-foot intervals along the trench alignment with one at each end of the trench that are perforated on the bottom 20 feet of the pipe. Displaced biopolymer slurry from ZVI/sand placement was pumped out the trench into an 18,000-gallon frac tank pending slurry breakdown and disposal to the sanitary sewer.

2.2 Permeable Reactive Barrier Cap

Upon verifying that the PRB backfill was placed to a minimum elevation of 331.0 feet NGVD29, Magnus installed a single layer of Mirafi 180 NC, 8-oz non-woven geotextile on the top surface of the PRB backfill. The Mirafi 180 NC is 15-feet wide and 300-feet long per roll. The Mirafi 180 NC product data sheet is enclosed in Attachment D. A single width of the roll was placed in the trench allowing the extra width of the roll to extend up the sidewalls approximately 6 feet on each side. The geotextile was held in place using speed-shoring that was placed in the trench to facilitate Controlled Density Fill (CDF) placement. (3) 8-inch diameter HDPE (SDR-17) pipes were placed at Sta. Nos. 11+20, 10+80, and 10+40 for future monitoring well conductor casings. The geotextile was cut with an "X" at each protrusion location for each 4-inch diameter recirculation pipe and the (3) 8-inch diameter conductor casings.

CDF backfill was manufactured by RC Ready Mix Co consisting of a 1-sack Portland Cement sand slurry. The CDF mix design and delivery batch tickets are enclosed in Attachment E. Magnus placed (11) 9-CY batches of CDF up to elevation 340.0 feet NGVD29 in less than a 5 hour duration as referenced by the batch tickets. Displaced biopolymer slurry from CDF placement was pumped out of the trench into an 18,000-gallon frac tank pending slurry breakdown and disposal to the sanitary sewer. The 8-inch diameter HDPE conductor casings were capped with an HDPE slip cap, the surrounding soil re-graded and a 3-foot diameter 1-inch thick steel plate placed over each monitoring well casing and surveyed by Carlson, Barbee & Gibson, Inc. The as-built survey of the PRB alignment and locations of the monitoring well casings is enclosed in Attachment A.

2.3 Slurry Breakdown

Magnus began breaking of the biopolymer slurry upon final placement of ZVI/sand. The biopolymer slurry was being re-circulated in the trench throughout the last day of final ZVI/sand placement. Trench development continued throughout CDF cap placement and continued until a minimum viscosity measurement of less than 30 marsh funnel seconds (mfs) was achieved in each of the six re-circulation pipes. Magnus successfully demonstrated that there is no permanent decrease in hydraulic conductivity by conducting viscosity measurements at a minimum of once per 25 feet of PRB installed. Final breakdown and documentation of the biopolymer slurry demonstration is enclosed in Attachment F.

Re-circulation pipes were abandoned after each location had demonstrated that the biopolymer slurry was broken to less than 30 mfs. Iron aggregate was placed in a 100% concentration in each of the six recirculation pipes from the bottom of the pipe up to a minimum elevation of 331.0 feet NGVD29. The pipes were then filled with 1,500-psi sand cement slurry that was supplied by Central Concrete Supply Co from the top of the PRB media to elevation 340.0 feet NGVD29. The mix design for 1,500-psi sand cement slurry is enclosed in Attachment G.

2.4 Waste Management and Disposal

Magnus constructed a lined Soil Stockpile and Staging cell for consolidation of excavation trench spoils and temporary staging until the waste was profiled and accepted for disposal at a regulated disposal facility. Magnus disposed of 742.56 Tons of waste materials (including disposal of the liner materials) at the Potrero Hills Landfill located at 3675 Potrero Hills Lane, Suisun, CA 94585. The Special Waste Profile is enclosed in Attachment H along with the disposal manifests and disposal weight log.

Magnus also contained approximately 36,000-gallons of wastewater consisting biopolymer slurry that was captured during displacement of PRB media and CDF placement pending slurry breakdown and disposal to the Dublin San Ramon Services District (DSRSD) sanitary sewer. Magnus received a permit for disposal by the DSRSD and the wastewater was tested in

Permeable Reactive Barrier Completion Report

compliance with the permit. The analytical testing indicated a Total Dissolved Solids concentration (TDS) greater than the permit allowance of 1,000 mg/L. Magnus submitted a request for waiver and subsequently received approval from the DSRSD to dispose of the wastewater with a TDS concentration greater than the permit allowance. The DSRSD Sewer Pretreatment Program Industrial Wastewater Discharge Permit and wastewater disposal log are enclosed in Attachment I.



3.0 QUALITY CONTROL

Subcontractor Daily Quality Control reports, submitted throughout the work, detail the work completed on each day and the quality control measures used to monitor and control the work.

In total, 4,364 vertical square feet (VSF) of excavation was completed under the biopolymer slurry trench method and approximately 3,119 VSF of ZVI/sand media was placed as measured by soundings. Magnus batched approximately 260.7 cubic yards of ZVI/sand media that was placed in the trench that consists of 270 tons of iron and 156 tons of sand. Magnus purchased a total of 283.5 TN of aggregate iron and 9 bags (13 TN) were remaining on-site at the conclusion of the project. Similarly, Magnus purchased a total of 178 TN of sand and 22 bags (22 TN) were remaining on-site at the conclusion of the project.

Samples of the slurry from the batch plant and from the trench were collected twice daily. The following slurry properties from the batch plant and in-trench slurry were measured and recorded twice daily: viscosity, density, and pH. Biopolymer slurry mixing was performed in accordance with the manufacturer's mix design.

Table 2 - Biopolymer Materials Used

Material	Unit	Quantity
G150 Guar Gum	KG	2100
Busan 1202	LB	66.3
Soda Ash	LB	350
LEB-H	GAL	8

ZVI/sand backfill samples were tested per batch basis for the first six batches mixed per day and every six thereafter. ZVI/sand backfill as-mixed in the ready-mix truck was tested for percent iron by weight using the magnetic separation test procedure. Non-compliant samples required additional mixing time in the ready-mix truck, re-testing, and where noted, an additional bag of iron was added to the ready mix truck to ensure that the magnetic separation test showed a minimum of 61.85% iron by weight with a (-)2% deviation allowed. The magnetic separation test procedure and the ZVI/sand Batch Logs and all magnetic separation tests performed are enclosed in Attached J.

Table 3 – ZVI/sand as Mixed

Date	No. of Tests Performed	No. of Re- Tests
10/13/15	3	1
10/14/15	6	5
10/15/15	7	1
10/16/15	6	2
10/17/15	6	1

ZVI/sand backfill samples were collected as-placed from the trench at 20-LF of PRB media placed. ZVI/sand backfill as-placed in the trench were tested for percent iron by weight using the magnetic separation test procedure. A total of 7 in-trench samples were collected from ZVI/sand backfill placement and all tests show that the minimum iron percentage of 61.85% by weight with a (-)0% deviation was contained in the in-trench sample.

Once set of cylinders were also cast from the CDF placed in the trench by Rockridge Geotechnical and tested for unconfined compressive strength at 16-days and 28-days. The test data is enclosed in Attachment K.



4.0 VARIATIONS/DEVIATIONS FROM THE PLANS AND SPECIFICATIONS

Variations from the Specification are noted in this section and have been approved with the Engineer, Construction Manager and Owner.

Table 4 - Variances

No	Description	Specification	Variance
1	Trench Width	DWG C-4, Detail 1 indicates 2-foot wide PRB	Magnus specialty long stick configuration and pin connection to the bucket requires a minimum bucket width of 28-inches. Additional sand was used in the batch calculations to maintain a ZVI equivalent thickness of 1.1 feet. The iron percentage volume changed from 55% iron to 47.14% iron.
2	Alignment	DWG C-3, Plan View	The radius from Sta. 11+46 to Sta. 11+29 was straightened in the field to include two straight segments with a point of intersection at Sta. 11+29 due to physical limitation with the excavator.
3	Depth	DWG C-3, Note 7 and Section 3.4.B of Spec 025010 indicate tolerance for bottom elev. is -0.1/+0.5 FT.	Excavation exceeded design elevation tolerances at Sta. 11+40, 11+30, 11+00 thru 10+70, 10+40, 10+20 thru 10+00. Inspections of the excavation spoils indicated clay material consistent throughout each station that exceeded design tolerances.
4	Top width	DWG C-3, Note 7 and Section 3.4.B of Spec 025010 indicate tolerance for PRB width is -0.0/+0.5 FT.	The as-built survey of the top of CDF reflects the expression of the PRB trench backfill at the surface. The width of the trench is generally vertical, on alignment, and approximately 28-inches wide.
5	CDF Cap Placement	DWG C-4, Detail 1 shows CDF depth varies to match existing grade	CDF was poured to elevation 340.0 FT NGVD29 rather than existing grade (approximately 340.7 FT) to meet planned working grade for ZCON.
6	Recirculation Pipe Abandonment	Section 3.4.F.3 of Spec 05010 indicates to abandon the pipe above the ZVI with grout	Magnus used 1,500-psi sand cement slurry manufactured by Central Concrete Supply Co to abandon the pipe riser from the top of the ZVI at elevation 331.0 FT NGVD29 to the top of the cap at elevation 340.0 FT NGVD29.
7	CDF Test Frequency	Section 1.7.1 of Spec 312310 requires test frequency twice for the initial 50 cubic yards	Rockridge Geotechnical only collected one set of samples (3) 6x12 inch molds for testing at 7, 28, and 56 days. An additional set of cylinders was not collected for the 99 cubic yards of CDF placed. Also, testing at 7-day was missed and the first cylinder was tested at 16-days.

5.0 CONCLUSION

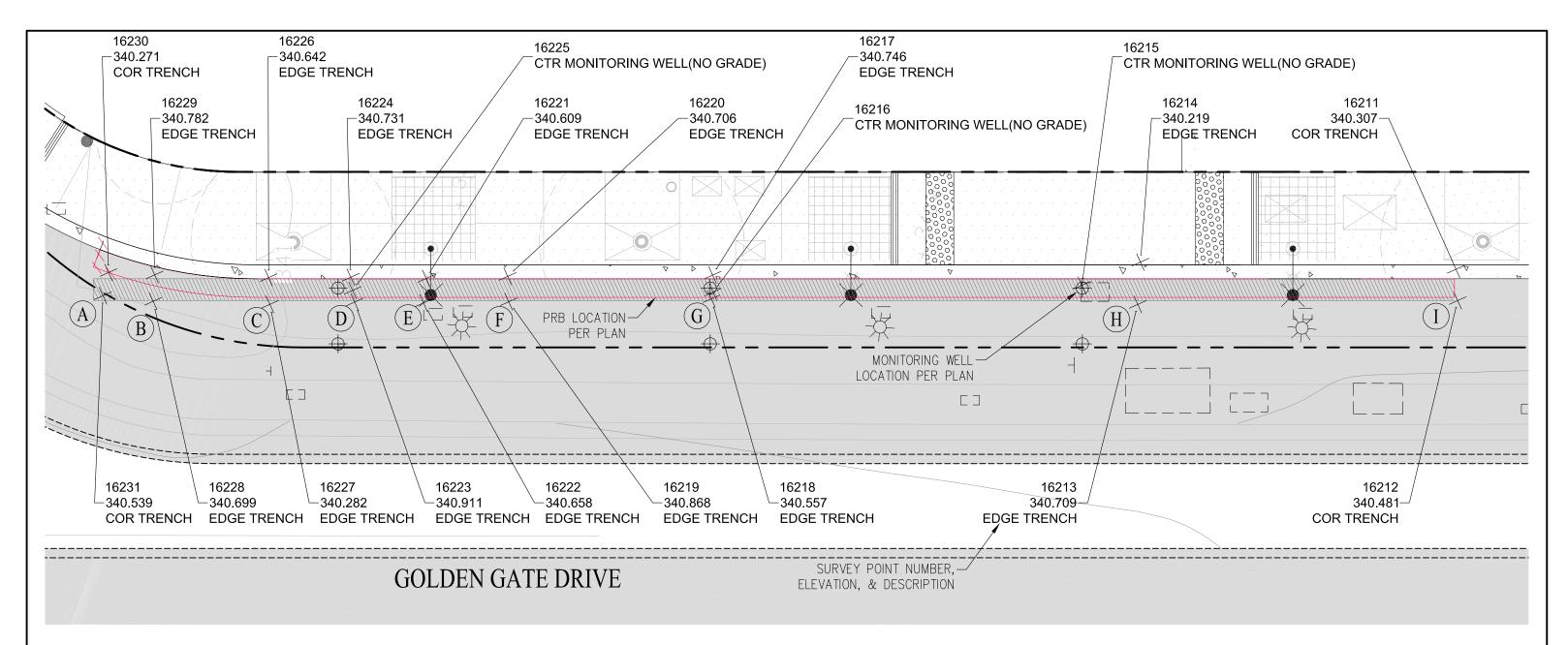
Magnus Pacific installed the Permeable Reactive Barrier at the 7544 Dublin Apartments Project in accordance with the Plans and Specifications and approved variances as noted in this completion report. Construction photographs are enclosed in Attachment L (submitted as a separate file) and in accordance with Article 1.9, Section 025010 of the Specifications, Magnus has also enclosed a performance warranty in Attachment M of this Completion Report.





ATTACHMENT A

PRB Survey Plan and Profile As-Built



AS BUILT PRB TRENCH WIDTH					
PKB IKE					
LOCATION	WIDTH (FT)				
A	2.54				
В	2.85				
С	2.88				
D	2.67				
E	2.63				
F	2.73				
G	2.55				
Н	4.55				
I	3.37				

LEGEND

PRB LOCATION PER AMEC IMPROVEMENTS PLANS

APPROXIMATE SUBSURFACE PRB LOCATION AS CONSTRUCTED, SEE NOTE 2

NOTES:

- 1. PRB AS-BUILT LOCATION, WIDTH, & ELEVATIONS ARE BEING SHOWN IN COMPARIOSON TO THE ULTIMATE BUILD OUT CONDITION FOR GOLDEN GATE DRIVE.
- 2. THE SURVEY REFLECTS THE EXPRESSION OF THE PRB TRENCH BACKFILL AT THE SURFACE, THE SHADED PRB LOCATION INDICATES THE ESTIMATED PRB LOCATION AT DEPTH.

PRB AS BUILT

7544 DUBLIN BLVD

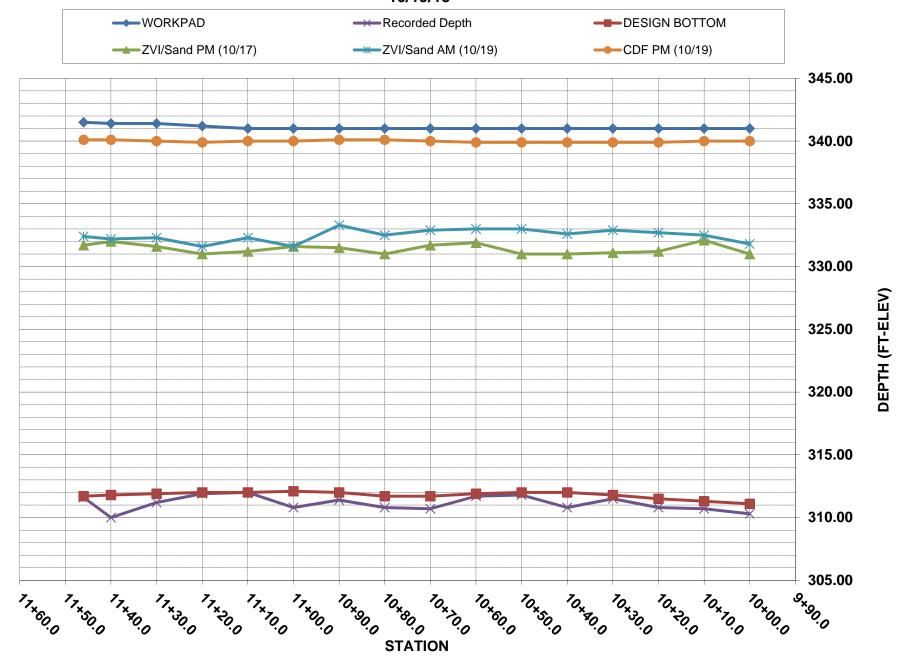
CITY OF DUBLIN ALAMEDA COUNTY CALIFORNIA

DATE: NOVEMBER, 2015 SCALE: 1"=10'





DUBLIN APARTMENTS PERMEABLE REACTIVE BARRIER 7544 DUBLIN BLVD, DUBLIN, CA 10/19/15





ATTACHMENT B

Material Gradations and Hydraulic Conductivity Testing

	EQUIPMENT DATA	ANS, SHOP DRAWING A, MATERIAL, SAMPLES RER'S CERTIFICATES	S,	DATE: S	ept 25, 2015		SUBMITTAL NO	003.1	
		SECTION I - REQUES	T FOR APPROVA	L OF TH	IE FOLLOV	VING ITEMS			
TO:	Mr. Sean R McKinley ZCon Builders 780 W Grand Avenue Oakland CA 94612 w: 510-444-4190 c: 510-507-3591 e: smckinley@zconbuilders.com	From: Mr. Tino B. Maestas, Magnus Pacific, LLC 6558 Lonetree Blvd Rocklin, CA 95765 Direct: 916-462-6419 Cell: 916-471-8210 email: tmaestas@ma) agnuspacific.com	PROJEC	T NO . 1500	19		EW SUBMITTAL ESUBMITTAL	
	FICATION SEC. NO. 0 - Permeable Reactive Barrier	7544 Dublin Apartments, Dub							
ITEM NO.		M SUBMITTED	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See Instruction on B)	NO. OF COPIES		CT REFERENCE OCUMENT DRAWING SHEET NO.	FOR CONTRACTOR USE CODE	VARIATION	FOR CLIENT USE
1	FINAL ZVI & Sand Pre-Constru	uction Test Data		1	2.5(D)-(G)	N/A	А		
REMA	RKS					d approved the attached subic performance requirements,			een verified as
						Tino B. Maestas, F	P.E		
			CTION II - APPRO				<u>, </u>		
ENC	LOSURES RETURNED (List by Item No.)	1	NAME, TITLE AND SIG	NATURE O	F APPROVING	AUTHORITY	Date		



Geo-Logic Associates 143E Spring Hill Drive Grass Valley, CA 95945 USA T+1 530 272 2448 F+1 530 272 8533 www.geo-logic.com

JOB NO: 2015.A111.100

LAB LOG: 3953.0

DATE: September 24, 2015

TO: Tino Maestas

Magnus Pacific Corporation

6558 Lonetree Blvd. Rocklin, CA 95765

e-mail: tmaestas@magnuspacific.com

RE: Lab Report: PRB Wall, Dublin CA

Enclosed are results for: Samples Received - September 4, 2015

Code	Item	Quantity
3050	Particle Size Analysis, Fine ASTM C-136	3
2150	Hydraulic Conductivity-Fixed-wall, 2-8" ASTM D-2434	4
1850	Dry Density / Moisture Content ASTM D-7263	4
4500	Void Ratio, Saturation & Porosity Determination	4

Thank you for consulting Geo-Logic Associates for your material testing requirements. We look forward to working with you again. If you have any questions or require any additional information, please call us at 1-530-272-2448. This testing is based upon accepted industry practice as well as the for the test method listed. These results apply only to the samples supplied and tested for the above referenced job. This report shall not be reproduced except in full without written approval of Geo-Logic Associates.

Sincerely,

Prepared By: Kindra Hillman Laboratory Manager

Reviewed By: Kenneth R. Criley
Technical Director

MIX SUMMARY



Client:
Magnus Pacific Corporation
Project Name:
PRB Wall, Dublin Ca

Project Name:
September 23, 2015

						BATCH VA	LUES	
DESCRIPTION	DENSITY	VOLUME	BLEND	SPECIFIC	VOLUME	MASS	MASS	
	pcf	%	pcf	GRAVITY	FT^3	%	lb∕ yd³	
Zero Valent Iron	160	55	88	7.8	0.181	69	2376	
# 20 Sand	88	45	39.6	2.7	0.235	31	1069	
Voids					0.584 = 5	58.4% Porosi	ty	
Totals		100	127.6		1.0	100	3445	

Notes: ** Classifications are based on ASTM D-2487 when appropriate test results are available and per ASTM D-2488 when visual

This testing is based upon accepted industry practice as well as the test method listed. These results apply only to the samples supplied and tested for the above referenced job.

LLN:

WATER CONTENT & DRY DENSITY



Client : Project No: Lab Log: 3953 Magnus Pacific Corporation 2015.A111.100

Project Name: Report Date:

PRB Wall Dublin, CA September 18, 2015

LSN	Sample ID	Soil Classification *	Water Content %	Dry Density pcf	Void Ratio	Porosity % **
А	Brown Sand	Lightly Compacted	0.6	107.4	0.57	36.3
А	Brown Sand	Loose		95.7	0.76	43.2
В	Silica Resource #20 Sand	Lightly Compacted	0.2	92.9	0.81	44.9
В	Silica Resource #20 Sand	Loose		83.2	1.03	50.7
С	Zero Valent Iron	Lightly Compacted	0.1	173.7	1.80	64.3
С	Zero Valent Iron	Loose		148.7	2.3	69.5
D	Blend	Lightly Compacted	0.1	124.0	2.1	68.1
D	Blend	Loose		128.3	2.0	67.0

Notes:

This testing is based upon accepted industry practice as well as the test method listed. These results apply only to the samples supplied and tested for the above referenced job.

L:Labexcel \ Projects \ Magnus Pacific Corporatio \ 2015.A111.10 \ 3953-DCN.xls DCN: MD (rev. 01/11/13)

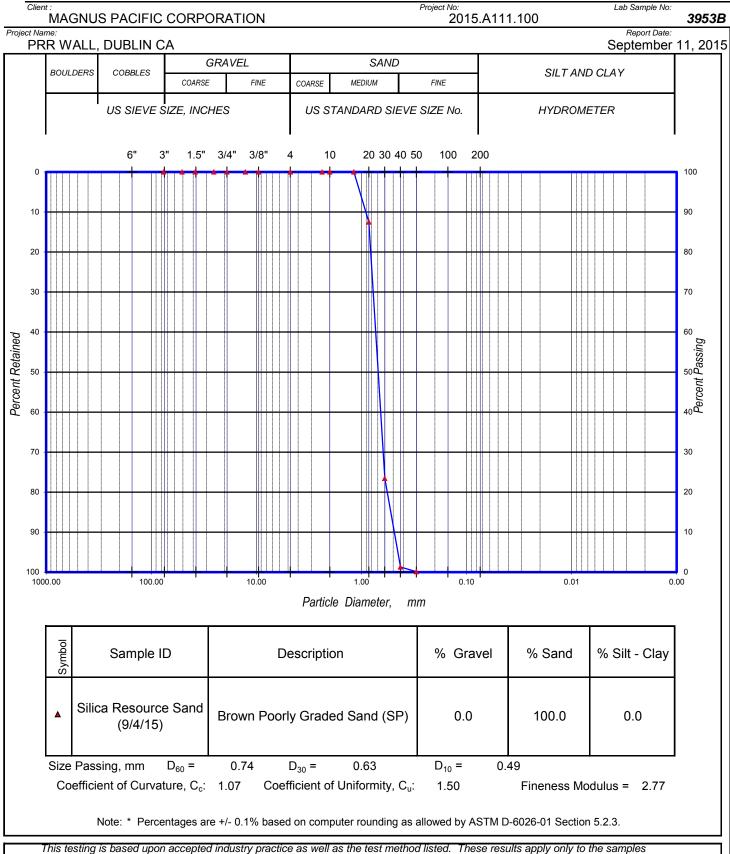
^{*} Classifications are based on ASTM D-2487 when appropriate test results are available and per ASTM D-2488 when visual ** Porosity based on specific gravities for Iron of 7.8 and sand of 2.7



PARTICLE SIZE ANALYSIS

Test Report
CalTrans 202

LSN:

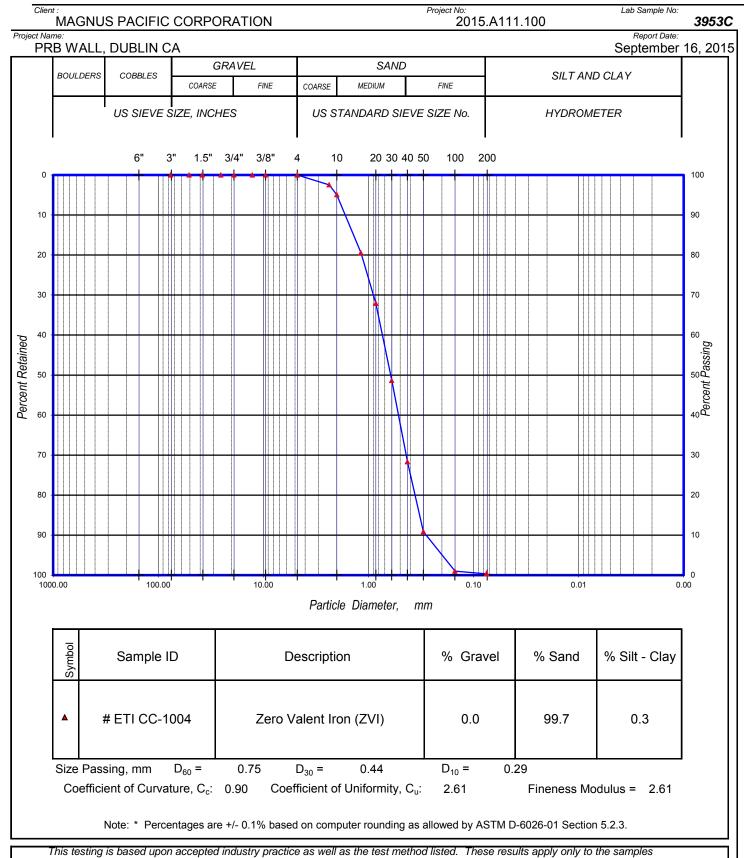


Geo-Logic

PARTICLE SIZE ANALYSIS

Test Report
CalTrans 202

3953C





PARTICLE SIZE ANALYSIS

TEST REPORT

CalTrans 202 Project No: 2015.A111.100 Lab Sample No: 3953C Magnus Pacific Corporation Report Date: PRB Wall, Dublin CA 9/16/2015 Sample Identification: # ETI CC-1004 Sieve Cumulative Percent **Project** Size Passing Specification 4" 3" 2" 1-1/2" 1" 3/4" 1/2" 3/8" #4 100.0 100 #8 97.5 95 - 100 #10 95.1 #16 80.6 75 - 90 #20 67.9 #30 48.6 25 - 45 28.3 #40 #50 10.9 0 - 10 #100 1.0 0 - 5

This testing is based upon accepted industry practice as well as the test method listed. These results apply only to the samples supplied and tested for the above referenced job.



HYDRAULIC CONDUCTIVITY

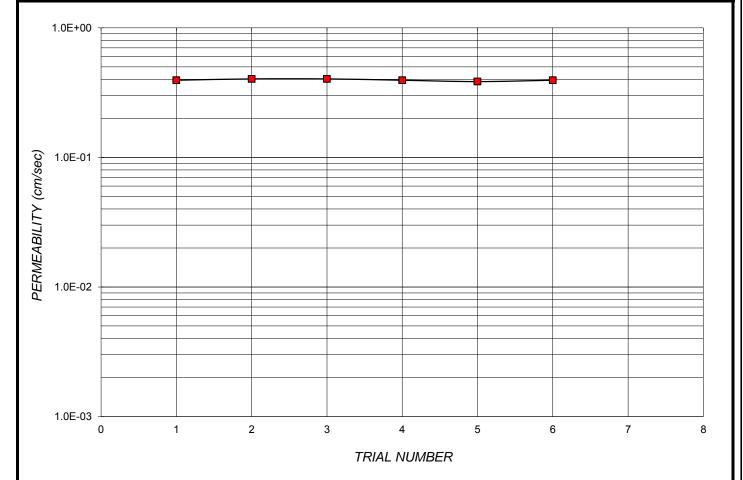
FIXED WALL

ASTM D-2434, Modified

Lab Log: Client Name / Proiect Name: Project No.: Magnus Pacific Corporation / PRB Wall, Dublin CA 3953B 2015.A111.100

Sample I.D.: Silica Resource Sand Light Brown Sand Report Date: September 17, 2015

TRIAL NUMBER	WATER CONTENT %	DRY DENSITY pcf kg/m^3	HYDRAULIC CONDUCTIVITY cm/sec
Initial	0.5	91.2 1460	
1			3.9E-01
2			4.0E-01
3		$3.9E^{-1} cm/s = 1120 ft$	4.0E-01
4			3.9E-01
5		/day	3.8E-01
6			3.9E-01
Final	27.8	AVERAGE:	3.9E-01



NOTES: 1) Test ran using 6 inch diameter fixed wall permeater.

Sample Length = 11.4 cm

LLN:

Reviewed By:

Entered By:

2) CONSTANT HEAD

Average Head = 4cm

This testing is based upon accepted industry practice as well as the test method listed. These results apply only to the samples supplied and tested for the above referenced job.

L: Labexcel \ Projects \ Client \Lab-Log \ 3953B-fwrp Print Date: KRC JL 3953B DCN: fwr-rp (rev. 12/16/05) 9/24/2015



HYDRAULIC CONDUCTIVITY

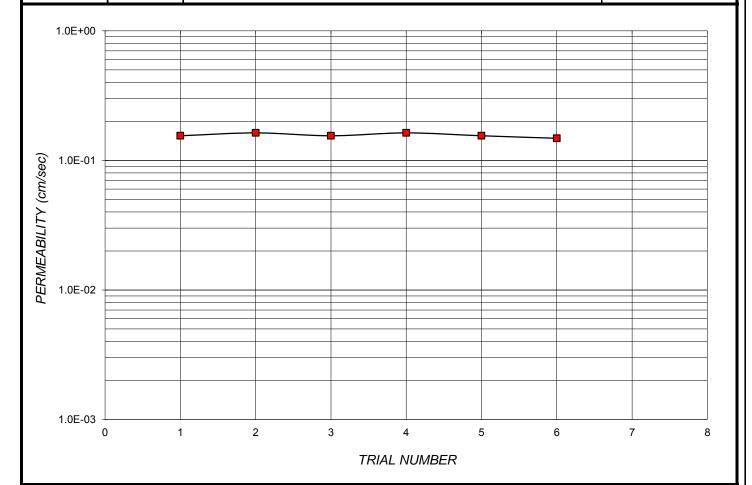
FIXED WALL

ASTM D-2434, Modified

Lab Log: Client Name / Proiect Name: Project No.: Magnus Pacific / PRB Wall Dublin, CA 3953C 2015.A111.100

Sample I.D.: ETI CC-1004 Report Date: September 18, 2015 Description: **ZVI IRON**

TRIAL	WATER	DRY	HYDRAULIC
NUMBER	CONTENT	DENSITY	CONDUCTIVITY
	%	pcf kg/m^3	cm / sec
Initial	0.1	152.0 2434	
1			1.5E-01
2			1.6E-01
3			1.5E-01
4		$1.6E^{-1} cm/s = 440 ft/day$	1.6E-01
5			1.5E-01
6			1.5E-01
Final	16.4	AVERAGE:	1.6E-01



NOTES: 1) Test ran using 6 inch diameter fixed wall permeater. Sample Length = 11.2 cm

2) CONSTANT HEAD

L: Labexcel \ Projects \ Client \Lab-Log \ 3953C-fwrp

This testing is based upon accepted industry practice as well as the test method listed. These results apply only to the samples supplied and tested for the above referenced job.

Average Head = 4.5cm

KRC JL 3953C DCN: fwr-rp (rev. 12/16/05) 9/24/2015

Entered By:

Print Date:

LLN:

Reviewed By:



21.4

Final

HYDRAULIC CONDUCTIVITY

FIXED WALL

ASTM D-2434, Modified

AVERAGE:

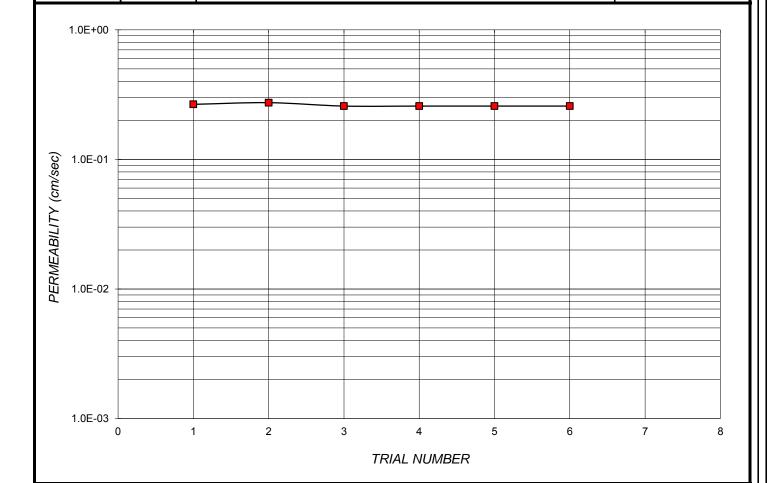
2.6E-01

Client Name / Project Name: Project No.: Lab Log:
Magnus Pacific / PRB Wall Dublin, CA 2015.A111.100 3953D

Sample I.D.: Description: Report Date:

Blend 45% #20 Sand w/ 55% ZVI Sand and Iron September 22, 2015

Biena 45% #20 Sana W/ 55% ZVI		Sand and Iron	September 22, 2015
TRIAL	WATER	DRY	HYDRAULIC
NUMBER	CONTENT	DENSITY	CONDUCTIVITY
	%	pcf kg/m^3	cm / sec
Initial	0.0	128.3 2054	
1			2.7E-01
2			2.7E-01
3			2.6E-01
4		$2.6E^{-1} cm/s = 730 ft/day$	2.6E-01
5			2.6E-01
6			2.6E-01



Average Head = 4.5cm

NOTES: 1) Test ran using 6 inch diameter fixed wall permeater.

2) CONSTANT HEAD

This testing is based upon accepted industry practice as well as the test method listed. These results apply only to the samples supplied and tested for the above referenced job.

L: Labexcel \ Projects \ Client \ Lab-Log \ 3953D-fwrp \qquad \ Print \ Date: \qquad Entered \ By: \qquad \ Reviewed \ By: \qquad \ LLN:

Sample Length = 11 cm

148.1481 density of Iron no compaction							
	pcf	% Vol	pcf each				
Iron	160	0.55	88				
Sand	88	0.45	39.6				
		1.00	127.6				
	pcf	Gs	Vol, ft3	% Mass	Batch		
Air, (Poros	ity)		0.584	(58.4 %)	grams		
Iron	88	486.954	0.181	69.0	3448		
Sand	39.6	168.561	0.235	31.0	1552		
	127.6		1.000	100.0	5000		

4967

Average = 161.15 Average = 88.05

Weighted average, Gs = 5.505

0.584

Batch Proportioning

	Batch Vol	Batch Vol	47%/53%	Weight	Bags			
	CY	CF	CF	LBS	EΑ		by mass	1.1 equivalent thickness
iron	5.89	159.03	74.96674	11994.68		4.00 at 3000-lb bulk bags	61.85%	2.333333 bucket width in feet
sand	5.89	159.03	84.06326	7397.567		3.70 at 2000-lb bulk bags	38.15%	47.14% iron by volume
			159.03	19392.25			-	
	Trench Dir	mensions		121.9408		+/- 2% fc	or batch testing	g
L	146	ft				1.24% 60.629	<mark>%</mark> allowable v	ariation for as-mix test
D	19	ft						
Т	2.333333	ft						
Trench Vol	6472.667	CF						
# Batches	40.70	batches at	5.89-CY/b	atch				
# iron bags	163	ordered a	total of 172	.5 TN from	Conne	elly and 111 TN from AME	C 283.5	TN 189 bags
# sand bags	151	ordered a	total of 178	TN from S	ilica R	esources Inc =	178	TN 178 bags



ATTACHMENT C

Connelly-GPM, Inc. Iron Aggregate Certificate of Analysis



CONNELLY - GPM, INC.

ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER:

MAGNUS PACIFIC

SHIPPING ORDER #:

12866

PRODUCT:

IRON AGGREGATE ETI CC-1004

QUANTITY:

15-3000 LB. BAGS

LOAD I.D.:

1 OF 7, 87705

DATE SHIPPED:

10/1/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	V
NUMBER 8	95-100	V
NUMBER 16	75-90	1
NUMBER 30	25-45	-
NUMBER 50	0-10	1
NUMBER 100	0-5	V

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director

D:\WORD\WT\MthruP\Magnus CofA 12866 1 thru 7



CONNELLY - GPM, INC.

ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER:

MAGNUS PACIFIC

SHIPPING ORDER #:

12866

PRODUCT:

IRON AGGREGATE ETI CC-1004

QUANTITY:

15-3000 LB. BAGS

LOAD I.D.:

2 OF 7, 87706

DATE SHIPPED:

10/1/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	V
NUMBER 8	95-100	1
NUMBER 16	75-90	1
NUMBER 30	25-45	
NUMBER 50	0-10	1
NUMBER 100	0-5	1

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director

D:\WORD\WT\MthruP\Magnus CofA 12866 1 thru 7

N



CONNELLY - GPM, INC.

ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER: MAGNUS PACIFIC

SHIPPING ORDER #: 12866

PRODUCT: IRON AGGREGATE ETI CC-1004

QUANTITY: 15-3000 LB. BAGS LOAD I.D.: 3 OF 7, 87726

DATE SHIPPED: 10/1/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	
NUMBER 8	95-100	1
NUMBER 16	75-90	
NUMBER 30	25-45	V
NUMBER 50	0-10	~
NUMBER 100	0-5	1

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director



ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER: MAGNUS PACIFIC

SHIPPING ORDER #: 12866

PRODUCT: IRON AGGREGATE ETI CC-1004

QUANTITY: 15-3000 LB. BAGS

LOAD I.D.: 4 OF 7, 87736

DATE SHIPPED: 10/2/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	
NUMBER 8	95-100	V
NUMBER 16	75-90	/
NUMBER 30	25-45	/
NUMBER 50	0-10	V.
NUMBER 100	0-5	V

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director

N



ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER:

MAGNUS PACIFIC

SHIPPING ORDER #:

12866

PRODUCT:

IRON AGGREGATE ETI CC-1004

QUANTITY:

15-3000 LB. BAGS

LOAD I.D.:

5 OF 7, 87735

DATE SHIPPED:

10/2/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	~
NUMBER 8	95-100	
NUMBER 16	75-90	V
NUMBER 30	25-45	1
NUMBER 50	0-10	/
NUMBER 100	0-5	

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director

D:\WORD\WT\MthruP\Magnus CofA 12866 1 thru 7



3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER: MAGNUS PACIFIC

SHIPPING ORDER #: 12866

PRODUCT: IRON AGGREGATE ETI CC-1004

QUANTITY: 15-3000 LB. BAGS

LOAD I.D.: 6 OF 7, 87781 DATE SHIPPED: 10/6/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

SPECIFICATION %	SAMPLE
PASSING BY WEIGHT	PASSED
100%	
95-100	1
75-90	
25-45	V
0-10	1
0-5	/
	PASSING BY WEIGHT 100% 95-100 75-90 25-45 0-10

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director

D:\WORD\WT\MthruP\Magnus CofA 12866 1 thru 7



ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER:

MAGNUS PACIFIC

SHIPPING ORDER #:

12866

PRODUCT:

IRON AGGREGATE ETI CC-1004

QUANTITY:

10-3000 LB. BAGS

LOAD I.D.:

7 OF 7, 87777

DATE SHIPPED:

10/7/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	~
NUMBER 8	95-100	V
NUMBER 16	75-90	/
NUMBER 30	25-45	~
NUMBER 50	0-10	V
NUMBER 100	0-5	V

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director

D:\WORD\WT\MthruP\Magnus CofA 12866 1 thru 7



3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

CERTIFICATE OF ANALYSIS

CUSTOMER: MAGNUS PACIFIC

SHIPPING ORDER #: 12877

PRODUCT: IRON AGGREGATE ETI CC-1004

QUANTITY: 15-3000 LB. BAGS

LOAD I.D.: 1 OF 1, 87815 DATE SHIPPED: 10/7/2015

THIS IS TO CERTIFY THAT THE ABOVE TRUCKLOAD OF IRON AGGREGATE ETI CC-1004 HAS BEEN TESTED AND FOUND TO CONFORM TO THE PRODUCT SPECIFICATIONS LISTED BELOW.

U.S. STANDARD	SPECIFICATION %	SAMPLE
SIEVE SIZE	PASSING BY WEIGHT	PASSED
NUMBER 4	100%	
NUMBER 8	95-100	
NUMBER 16	75-90	1
NUMBER 30	25-45	1
NUMBER 50	0-10	1
NUMBER 100	0-5	

BULK DENSITY (SPECIFICATION: 140-160#/CU FT):

MATERIAL FREE OF OIL/GREASE (TAKES WATER READILY):

MINERALOGY OF FILINGS AT LEAST 85% BY WEIGHT METALLIC IRON:

Galen B. Dixon, Technical Director



ESTABLISHED 1875

3154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176 PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

August 5, 2014 Via UPS Ground

Mr. Brent O'Dell AMEC 200 American Metro Blvd. Suite 113 Hamilton, NJ 08619

Re: Sample Iron Aggregate ETI CC-1004 and Quality Control Report

Dear Brent,

Enclosed is 20 lbs. of our Iron Aggregate ETI CC-1004 extracted from the production run of your 1,375.5NT for Haledon, NJ. I've also included a Screen Specification for this material, an MSDS for Iron Aggregate, and some pens for your use (great little pocket pens!). The Quality Control Report is being sent under separate cover, via e-mail.

The Quality Control Report certifies that the Iron Aggregate ETI CC-1004 produced for your Haledon, NJ site is within the specification for particle size distribution, bulk density, oil and grease content, and percentage of iron (note: we did not have another analysis run for current carbon content, but past analyses have put it around 3%).

If there's anything further you need, please let me know.

Kindest regards,

CONNELLY-GPM, INC.

THE IRON AGGREGATE PEOPLE™

Amy Marchefka Sales Manager

Enclosures

c: Mr. Pat Pontoriero

D:\WORD\WT\AthruD\AMEC\20-lb 1004 Sample



2154 SOUTH CALIFORNIA AVENUE CHICAGO, ILLINOIS 60608-5176
PHONE: (773) 247-7231 • www.ConnellyGPM.com • FAX: (773) 247-7239

August 8, 2014

Current Production Sample Analysis ETI CC-1004

Sieve Analysis Results

U.S. SCRE	EEN R (Opening Size)	SPECIFICATION	SAMPLE TEST RESULTS
4	(4.75 mm)	100% PASSING	100%
8	(2.36 mm)	95 - 100% PASSING	97.5
16	(1.18 mm)	75 - 90	75.9
30	(0.600 mm)	25 - 45	37.9
50	(0.300 mm)	0 - 10	7.3
100	(0.150 mm)	0 - 5	0.6

MATERIAL WEIGHS APPROXIMATELY 159 POUNDS PER CUBIC FOOT

Metallic Iron as determined by spectral analysis	87-93%
Metallic Iron as determined by dissolution in HCl	89.0%
Oil and Grease content as determined by Hexane Extraction	10 mg/kg*

*(10 ppmw is the smallest unit of detection. Actual results appeared to be between 0 and 10.)

GALEN B. DIXON Technical Director

Jmn 8/8/2014

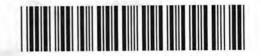


ATTACHMENT D

Mirafi 180 NC Geotextile Product Data Sheet



ON ACCOUNT



018 - Dublin 6341 Scarlett Court Dublin, CA, 94568 (925) 833-9200

Sold 126996000

To: MAGNUS PACIFIC CORP 6558 LONETREE BLVD ROCKLIN, CA, 95765 916-233-1137 PACKING SLIP

18464996

Delivery : 3937385

Ship To: DUBLIN APARTMENTS, 10000890314 7544 DUBLIN BLVD DUBLIN, CA, 94568

Job Site Contact: TINO MAESTAS Job Site Phone: 916-471-8210

Map #:

Printed By : SAMUEL TENNELL

Printed Date: 10/15/2015 12:23 PM PACIFIC Ordered By: TINO MAESTAS Contact Ph#: 916-471-821

Printed Date	: 10/15/2015 12:23 PM P	ACIFIC	Ordered B	y:TINO	MAESTAS		Contac	et Ph#	: 916-471-821	.0
Order Number	Order Date	Request Date	Customer l	РО	Terms	Ship via/Rou	iting	Sales	Person	Created By
18464996	10/14/2015	10/15/2015	TINO / MA	RC	N30D	2. Our True	ck	Bro	oks, D	Reed, D
LN	Part#	Descri	ption		Quantit	y	U/N	1	Price	Amount
Bin	H/M	LOT/S/N		ORD	SHP	ВКО	Unit	WT	C00	Applied
1 1-YARDI	157R180NC15	ROLL 180N 4500SF MIRAF		1	1	0	RL 250 L			
- A C - 2 C	VPN: 180NC/15/300									

REPORT DISCREPANCIES WITHIN 24 HRS.
IF YOU DIDN'T RECEIVE THE SERVICE YOU EXPECTED CALL JAMES JACKSON (916) 997-9524

NO REFUNDS OR EXCHANGES ON NON STOCK MERCHANDISE SEE REVERSE SIDE FOR TERMS AND CONDITIONS

WWW.WHITECAP.COM

PRINT:		SIGN :					
SHIPPED WEIGHT: 250.00 LBS	PULLED BY:	CHECKED BY:	LOADED BY:				



Mirafi® 180NC





Mirafi[®] 180NC is a needlepunched nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi[®] 180NC is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids. Mirafi[®] 180NC meets AASHTO M288-06 Class 1 for Elongation > 50%.

TenCate Geosynthetics Americas Laboratories are accredited by <u>a2La</u> (The American Association for Laboratory Accreditation) and Geosynthetic Accreditation Institute – Laboratory Accreditation Program (<u>GAI-LAP</u>).

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value		
			MD	CD	
Weight	ASTM D5261	oz/yd² (g/m²)	7.5 (254)		
Grab Tensile Strength	ASTM D4632	lbs (N)	205 (912)	205 (912)	
Grab Tensile Elongation	ASTM D4632	%	50	50	
Trapezoid Tear Strength	ASTM D4533	lbs (N)	80 (356) 80 (35		
CBR Puncture Strength	ASTM D6241	lbs (N)	550 (2447)		
Apparent Opening Size (AOS) ¹	ASTM D4751	U.S. Sieve (mm)	80 (0.18)		
Permittivity	ASTM D4491	sec ⁻¹	1.0		
Flow Rate	ASTM D4491	gal/min/ft2 (l/min/m2)	70 (2852)		
UV Resistance (at 500 hours) ²	ASTM D4355	% strength retained	7	0	

¹ ASTM D4751: AOS is a Maximum Opening Diameter Value

² Modified

Physical Properties	Unit	Typical Value ³				
Roll Dimensions (width x length)	ft (m)	12.5 x 360 (3.8 x 110)				
Roll Area	yd² (m²)	500 (418)				
Estimated Roll Weight	lb (kg)	262 (119)				

³ ASTM D4439 Standard Terminology for Geosynthetics: typical value, *n*—for geosynthetics, the mean value calculated from documented manufacturing quality control test results for a defined population obtained from one test method associated with on specific property.

Disclaimer: TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

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365 South Holland Drive Pendergrass, GA 30567 Tel 706 693 2226 Tel 888 795 0808 Fax 706 693 4400 www.tencate.com











ATTACHMENT E

CDF Mix Design and Delivery Batch Tickets

SUBMITTAL OF PLANS, SHOP DRAWINGS EQUIPMENT DATA, MATERIAL, SAMPLES OR MANUFACTURER'S CERTIFICATES			S,	DATE: C	october 10, 20	15	SUBMITTAL NO.	312310-0001-0	1
		SECTION I - REQUES	T FOR APPROVA	L OF TH	IE FOLLOV	VING ITEMS			
TO: Mr. Sean R McKinley ZCon Builders 780 W Grand Avenue Oakland CA 94612 w: 510-444-4190 c: 510-507-3591 e: smckinley@zconbuilders.com From: Mr. Tino B. Maestas, P. Magnus Pacific, LLC 6558 Lonetree Blvd Rocklin, CA 95765 Direct: 916-462-6419 Cell: 916-471-8210 email: tmaestas@magn			9 agnuspacific.com	PROJEC	T NO . 1500	19		EW SUBMITTAL ESUBMITTAL	
	FICATION SEC. NO. 10 Excavation for Remediation	PROJECT TITLE AND LOCA 7544 Dublin Apartments, Du							
ITEM NO.		M SUBMITTED	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See Instruction on B)	NO. OF COPIES		CT REFERENCE OCUMENT DRAWING SHEET NO.	FOR CONTRACTOR USE CODE	VARIATION	FOR CLIENT USE
1	Revised CDF Mix Design			1	1.5.B	N/A	А		
2	CDF Material Certifications			1	1.5.C	N/A	А		
REMAI	<u> </u> RKS			<u> </u>		d approved the attached subric performance requirements. Tino B. Maestas, P	materials, catalog numbers		een verified as
		SI	ECTION II - APPRO	VAL ACT	ION	TITIO D. MAESIAS, P	.∟.		
ENCI	LOSURES RETURNED (List by Item No.)		NAME, TITLE AND SIG			AUTHORITY	Date		

READYMIX TRANSIT

Phone (925) 449-7785



ROCK and SAND DELIVERY

FAX (925) 449-1691

CUSTOMER :				DATE :	11.12.15					
MAGNUS PACIFI	С		ļį.	MIX # RC	CDF1F					
				CONCRET	E DESCRI	PTION				
JOB DESCRIPTION	<u>:</u>		1 ;	SACK CDF						
			100 p	osi 28 DAY S	TRENGTH (f	'c)				
DUBLIN APARTME	NTS		1 9	SACK CEME	NTIOUS MAT	ERIAL				
DUBLIN, CA.			#4 1	# 4 MAX AGGREGATE						
			6"\$	SLUMP +- 1"						
			3.63 \	W/C RATIO						
	DESCRIP	O MOIT	F MATERIAI	<u>_S</u>						
TEICHERT MATERIALS	3		CONCRETE S							
CA. PORTLAND			V L/A PORTLA		IT ASTM C-1	50				
HEADWATERS RESOL	JRCES	CLASS F FLYASH ASTM C-618								
MASTER BUILDERS		322N W	322N WATER REDUCER ASTM C-494 TYPE A							
<u>MATERIAL</u>	SOLID VOL	<u>UME</u>	Sp.GR X 62.	<u>4</u>	SSD QUAN	<u>TITY</u>				
			lb/cu.ft.							
CLASS II TOP SAND	20.29	cf	165.4		3356	lhe				
PORTLAND TYPE II	0.22		196.6			lbs.				
TYPE F FLYASH	0.22	-	142.86			lbs.				
WATER gal 41	5.47		62.45	8.33	342					
AIR % 2.50	0.67		3.66	0.00	042	103.				
MBT 322N	0.07		0.00		6	OZS.				
		0.			-	020.				
TOTALS	27.00	cf			3792	lbs.				
	27.00	cf			3792	lbs.				
		cf			3792	lbs.				
SPECIAL INSTRUCT	IONS :				3792	lbs.				
	IONS :		LE		3792	lbs.				
TOTALS SPECIAL INSTRUCT	IONS :		LE		3792	lbs.				

TEICHERT MATERIALS

Material Evaluation

Plant: Vernalis

SMARA # 91-39-0021

Product: Concrete Sand

Grading & SE represent averages from testing dates of 7-1-14 to 9-30-14

Siev	e Size	Percent Passing		Specific Gravity ASTM C-128					
75mm	3"								
63mm	2 1/2"	-		Bulk SSD	2.647				
50mm	2"								
37.5mm	1 1/2"								
25mm	1"								
19mm	3/4"			Absorption %	1.8				
12.5mm	1/2"			Soil pH ASTM D4972	8.8				
9.5mm	3/8"	100		Resistivity min_ohm-cm	10,450				
4.75mm	#4	99		Chloride ppm	10.3				
2.36mm	#8	81	***************************************	Sulfate ppm	13.6				
1.18mm	#16	60							
600µm +	#30	43		Plasticity Index ASTM D 43	318 - NP				
300µm	#50	23							
150µm	#100	6		% Finer than #200 AST	M C117				
75µm	#200	1,6			2.5				
FM		2.89		% Clay Lumps ASTM C-142	0.2				
Sand E	quivalent	ASTM D-2419	81						
Coeffic	ient of Un	iformity	6.08	Organic Impur.ASTM C-40	satisfactory				
Durabil	ity Index .	ASTM D-3744	56	R Value	71				
				Unit Weight ASTM C-29					
Shale 8	Chert %	ASTM C-295		Dry Loose (PCF)	106.2				
			0.0	Dry Rodded (PCF)	110.0				
Maximu	ım Dry De	ensity ASTM D	1557	Soundness NaSO4 ASTM	C-88				
ASTM	PCF		131.3	Caltrans CT-214	3.0				
Optim	um Moistu	ıre %	10.2	ASTM C-88	3.3				
ASTM C	1293 on	e year expansio	n a maria	0.026% (Innocuous)					

Report Date:

10/16/2014



Manufacturer's Certification

We herby certify that this Type II/V Low Alkali cement, sourced from US, CA, Mojave, supplied to you has been manufactured in accordance with and meets the standard requirements of ASTM C150 specification for Type II and Type V cement. Additionally, this Type II/V cement meets the requirements of Caltrans Standard Specification Sec. 90-1.02(B). Below are the average chemical and physical data from September 1, 2014 to September 29, 2014

	ASTM	C150 Requirem	onts	F	10/10/2011
Chemical Analysis	ASIN	TYPE II	TYPE V	MOJAVE	Additional Data
Chemical Alialysis					Additional Bata
		Requirements	Requirements	TYPE II/V	
011 11 (0:00)					Limestone Analysis
Silicon dioxide (SiO2), min,%				20.6	3.8
Aluminum oxide (Al2O3), max,%	(1) (0)	6	/	3.5	1.1
Ferric oxide (Fe2O3), max,%	(Note 2)	6	/	3.6	0.6
Calcium Oxide (CaO), %		, 1			47.5
Magnesium oxide (MgO), max,%	41. 4	6	6	3.1	1.5
Sulfur trioxide (SO3), max,%;	(Note 1)	3	2.3	2.8	0.1
Loss on ignition, max,%		3.0	3.0	2.6	Dana Oamani Dhaaa
Insoluble residue, max,%		0.75	0.75	0.56	Base Cement Phase
Alkalies(Na2O+0.658*K2O), max,%	(1)	0.6	0.6	0.56	Composition
Tricalcium silicate (C3S), %	(Note 5)			57	59
Dicalcium silicate (C2S), %				15	16
Tricalcium aluminate (C3A), max,%;	(Note 2)	8	5	3	3
Tetracalcium aluminoferrite (C4AF),%				11	11
C4AF + 2*(C3A), max,%;	(Note 2)		25	17	
CO2, %				1.3	
limestone, max,%		5	5	3.1	
CaCO3 in limestone, min, %		70	70	92.8	T 7
Physical Data					
Air content of mortar, max, %		12	12	7	V
Passing 45um (no. 325) sieve, %			7	97.4	
Blaine Fineness, min, m2/kg;		280/	280/	408	
Heat of Hydration, C186, (cal/g),	(Note 3)			77	
Autoclave expansion, max,%	(Note 4)	0.8	0.8	0.01	
Compressive Strength, min, MPa, (psi)					
3 days , Mpa		10	8	25.5	
PSI		1450	1160	3700	
7 days , Mpa		17	15	31.5	
PSI		2470	2180	4570	
28 days *(from previous month) Mpa			21	39.0	
PSI			3050	5660	
Vicat, initial set, minmax., minutes		45-375	45-375	159	
C 1038, 14 day max, % expansion	(Note 1)	0.02	0.02	0.006	
C 452, 14 day max, % expansion	(Note 2)		0.04	0.027	
False Set, final penetration, min,%		50	50	81	

Apparatus and methods used in this laboratory have been checked by the Cement and Concrete Reference Laboratory of the National Institute of Standards and Technology. A copy of the report detailing their findings is available upon request. Major Oxides are analyzed by X-ray Fluorescence Spectrometry.

Note 1: ASTM C150, Table 1, Note D, It is permissible to exceed the values in the table for SO3 content, provided it has been demonstrated by Test Method C1038 that the cement with the increased SO3 will not develop expansion exceeding 0.020% at 14 days..

Note 2: ASTM C150, Table 1, Note B, Does not apply when the optional sulfate resistance limit in Table 4 is specified.

Note 3: ASTM C150, Table 1, Note H: For Informational Purposes Only

Note 4: Caltrans Specification Sec. 90-1.02B(2): Autoclave expansion shall not exceed 0.50 %.

Note 5: Caltrans Specification Sec. 90-1.02B(2): Type II cement C3S content shall not exceed 65%.

Charles T. Weight Ir.



ASTM C618 Testing of Jim Bridger Fly Ash

Sample Type:	3200-ton			Report Date:	12/3/2014	
Sample Date:	10/10 - 10/13/14			MTRF ID:	2329JB	
Sample ID:	BR-116-14-R					
				ASTM	Limits	ASTM Test
Chemical Analys	is			Class F	Class C	Method
Silicon Dioxide (S	SiO2)	61.61	%			
Aluminum Oxide	(Al2O3)	18.36	%			
Iron Oxide (Fe2O	3)	4.73	%			
Sum of Constituer	nts	84.70	%	70.0% min	50.0% min	D4326
Sulfur Trioxide (S	SO3)	0.58	%	5.0% max	5.0% max	D4326
Calcium Oxide (C	'aO)	5.66	%			D4326
Moisture		0.04	%	3.0% max	3.0% max	C311
Loss on Ignition		0.28	%	6.0% max	6.0% max	C311
Physical Analysis	S	<u>-</u>				
Fineness, % retain	ned on #325	19.82	%	34% max	34% max	C311, C430
Strength Activity	Index - 7 or 28 day req	uirement				C311, C109
7 day, % of contro	• •	94	%	75% min	75% min	
28 day, % of contr	rol	93	%	75% min	75% min	
Water Requirement	nt, % control	98	%	105% max	105% max	
Autoclave Soundr	ness	0.03	%	0.8% max	0.8% max	C311, C151
Density		2.39				C604

Headwaters Resources certifies that pursuant to current ASTM C618 protocol for testing, the test data listed herein was generated by applicable ASTM methods and meets the requirements of ASTM C618.





Cast-in-Place Concrete	03 30 00	
Precast Concrete	03 40 00	`
Mass Concrete	03 70 00	5

MasterPozzolith® 322

Water-Reducing Admixture

Formerly Pozzolith 322 N*

Description

MasterPozzolith 322 ready-to-use, liquid admixture is used for making more uniform and predictable quality concrete. It meets ASTM C 494/C 494M requirements for Type A, water-reducing, Type B, retarding, and Type D, retarding and water-reducing, admixtures.

Applications

Recommended for use in:

- Prestressed concrete
- Precast concrete
- Reinforced concrete
- Shotcrete
- Lightweight concrete
- Pumped concrete
- 4x4[™] Concrete
- Pervious concrete
- Self-consolidating concrete (SCC)

Features

- Reduced water content required for a given workability
- Normal setting characteristics

Benefits

- Improved workability
- Reduced segregation
- Superior finishing characteristics for flatwork and cast surfaces
- Increased compressive and flexural strengths

Performance Characteristics

Mix Data: 400 lb/yd³ (237 kg/m³) of Type I cement; slump 5 inches (125 mm); non-air-entrained concrete; concrete temperature 76 °F (24 °C); ambient temperature 74 °F (23 °C).

Setting Time

Mix Design	Initial Set (h:min)	Difference (h:min)			
Plain Concrete	5:20	REF			
MasterPozzolith 322 admixture @					
3 fl oz/cwt (195 mL/100 kg)	5:15	-0:05			
5 fl oz/cwt (325 mL/100 kg)	5:40	+0:20			
7 fl oz/cwt (460 mL/100 kg)	6:20	+1:00			

Compressive Strength

Mix Design	psi	7 Days MPa	%	psi	28 Day MPa	's %	
Plain Concrete	2150	14.8	100	3070	21.2	100	
MasterPozzolith 322 admixture @							
3 fl oz/cwt (195 mL/100 kg)	2820	19.4	131	3970	27.4	129	
5 fl oz/cwt (325 mL/100 kg)	3160	21.8	147	4100	28.3	134	
7 fl oz/cwt (460 mL/100 kg)	3190	22.0	148	4390	30.3	143	

Note: The data shown are based on controlled laboratory tests. Reasonable variations from the results shown here may be experienced as a result of differences in concrete-making materials and jobsite conditions.



Setting time of concrete is influenced by the chemical and physical composition of the basic ingredients of the concrete, the temperature of the concrete and the climactic conditions. Trial mixes should be made with job site materials to determine the dosage required for specified setting time and a given strength requirement.

Guidelines for Use

Dosage: MasterPozzolith 322 admixture is recommended for use within a range of 3-7 fl oz/cwt (195-460 mL/100 kg) of cement for most concrete mixtures using average concrete ingredients. Because of variations in job conditions and concrete materials, dosages other than the recommended amounts may be required. In such cases, contact your local sales representative.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterPozzolith 322 admixture will neither initiate nor promote corrosion of reinforcing steel in concrete. This admixture does not contain intentionally-added calcium chloride or other chloride-based ingredients.

Compatibility: MasterPozzolith 322 admixture may be used in combination with any BASF admixtures. When used in conjunction with other admixtures, each admixture must be dispensed separately into the mixture.

Storage and Handling

Storage Temperature: MasterPozzolith 322 admixture should be stored above freezing temperatures. If MasterPozzolith 322 admixture freezes, thaw at temperatures above 35 °F (2 °C) and completely reconstitute by mild mechanical agitation. **Do not use pressurized air for agitation.**

Shelf Life: MasterPozzolith 322 admixture has a minimum shelf life of 18 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterPozzolith 322 admixture has been exceeded.

Packaging

MasterPozzolith 322 admixture is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterPozzolith 322 admixture

Additional Information

For additional information on MasterPozzolith 322 admixture, contact your local sales representative.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

Limited Warranty Notice

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of BASF. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

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^{*} Pozzolith 322 N became MasterPozzolith 322 under the Master Builders Solutions brand, effective January 1, 2014.





Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

TERMS & CONDITIONS CAUTION May cause eye or skin irritation. Contains Portland cement. Freshly mixed cement, mortar, By accepting delivery buyer agrees to the following terms: . We make all deliveries inside street side curb only and accept no responsibility for damage made inside lot. concrete, or grout may cause skin injury. 1. Avoid all contact with eyes. 2. A confined washout area must be provided and buyer assumes all 2. Avoid prolonged Contact with skin. Wear rubber gloves and boots. responsibility and liability for cleaning the washout area. 3. FLUSH THOROUGHLY WITH CLEAN WATER if direct contact to skin or eyes. 3. All orders COD are to be paid by Cash, Visa, or Master Card, unless otherwise authorized. 4. Seek medical attention if irritation persists. 4. There will be a \$35 charge on all returned checks. 5. KEEP CHILDREN AWAY. Charge account balances are to be paid within 30 days of the 6. WARNING: THIS PRODUCT CONTAINS ONE OR MORE CHEMICALS KNOWN TO original delivery date; all past due balances will result in all loss of THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER discount, and subject to finance charges equal to 1-1/2% per month (18% APR). SEE NOTES & NOTICES BELOW REPRODUCTIVE HARM NOTICE TO PROPERTY OWNERS: Do Not rely upon this invoice as proof of payment. Property owners should be aware of all mechanic Lien laws. Customer further agrees to pay for expenses and costs including court & attorney's fees in connection with the collection of account. Chargeable Min. @\$1.50/Min. (M-F) Total Min. Arrive Arrive Job Start Pour Plant @\$2.00/Min. (Sat.) Ticket No. Allowable Batch Time Driver Truck Date 9:37 OD 45 19/20 Delivery Address: 7544 DUBLIN Sold To: MAGNUS *C*O*D* CASH ON DELIVERY 580 W.R>SAN RAMON R>DUBLIN R>GOLDEN 916-471-8210 GATE L>SI_PAIRICK By Whom: PO No. Water Added @ Job Slump 1030-1130 Quantity Delivered Price Per Unit Price Delivered Quantity This Unit Product Description YD CONTROL DENSIT \$828.00 9.00 692.00 9.00 ENVIROMENTAL FEE 139,00 9.00 EA \$5.00 Sub Total WEIGHMASTER CERTIFICATE ATTENTION: Signature below THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by indicates that I have read all notices and \$82.94 Taxes a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as disclaimers and agree to all terms. LOAD RECEIVED BY prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Total Ticket Professions Code, administered by the Division of Measurement Standards of the California \$955.94 Department of Food and Agriculture Other Chgs. Deputy Weighmaster Measured/Weighed at 1227 Greenville, Road, Livermore, CA 94550 Property Damage Release Authorized Grand Total \$955,94

NOTES: 1. All traffic controls, flagmen, etc. are the responsibility and liability of the purchaser, and must conform to all applicable laws.

2. RC Readymix Co., Inc. makes NO guarantees or warranties with respect to product's finished appearance, color, uniformity, cracks or popouts.

3. Any additional water added to this concrete will alter the water to cement ratio, and therefore reduce the strength.

4. This concrete is designed in accordance with ACI standards; any additional water added is at purchaser's risk.

5. RC Readymix Co., Inc. provides 5 minutes free per yard. Excess time will be charged at the standby rate.



CAUTION

May cause eye or skin irritation. Contains Portland cement. Freshly mixed cement, mortar, concrete, or grout may cause skin injury.

1. Avoid all contact with eyes.

2. Avoid prolonged Contact with skin. Wear rubber gloves and boots.

- 3. FLUSH THOROUGHLY WITH CLEAN WATER if direct contact to skin or eyes.
- 4. Seek medical attention if irritation persists.

5. KEEP CHILDREN AWAY.

6. WARNING: THIS PRODUCT CONTAINS ONE OR MORE CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER DEPONDICTIVE HARM

TERMS & CONDITIONS

By accepting delivery buyer agrees to the following terms:

1. We make all deliveries inside street side curb only and accept no

1. We make all deliveries inside street side curb only and accept no responsibility for damage made inside lot.

 A confined washout area must be provided and buyer assumes all responsibility and liability for cleaning the washout area.

 All orders COD are to be paid by Cash, Visa, or Master Card, unless otherwise authorized.

4. There will be a \$35 charge on all returned checks.

Charge account balances are to be paid within 30 days of the original delivery date; all past due balances will result in all loss of discount, and subject to finance charges equal to 1-1/2% per month (18% APR). SEE NOTES & NOTICES BELOW

REPRODUCT	IVE HARM.			in the second			NOTES & NOTIC		
NOTICE TO PRO	OPERTY OWNE	RS: Do Not rely upon to pay for expenses	on this invoice and costs in	ce as proof of pay cluding court &	ment. Proper attorney's fee	ty owners she s in connection	ould be aware of on with the colle	all mechanication of acc	ount.
Arrive Job	Start Pour	Finish Pour	Total Min.	Chargeab @\$1.50/l	le Min. Min. (M-F) Min. (Sat.)	Arrive Plant			
COD (Yes/No)	Batch Time	Acct. No.	Allowable Min.	Driver	Truck No.	Date		Ticket No.	
Y	10:38	COD	45	ERIC	125	10/19/2	2015 1743	32	
Sold To: MAGNUS *C*O*D* CASH ON DELIVERY 916-471-8210 Delivery Address: 7544 DUBLIN BLVD DUB 580 W.R>SAN RAMON R>DUBLIN R>GOLDEN GATE L>ST.PATRICK									
PO No.	The said	Load No. 2 Job	1030-	-1130 Wa	ter Added @ Job gals.		Whom:	Slump 5	.00
Quantity This Load	Unit Product	Descrip	otion	Quantity Ordered		antity ivered	Price Per Unit	Price Delive	
9.00 Y	D CDF1F	CONTROL DE	NSITY	130.00	18.0		32.00	\$828.0	200
9.00 E	A SURCH1	ENVIROMENT	AL FEE	130.00	18.0	JU \$3	5.00	\$45.(00
WEIGHMASTER CER	RTIFICATE	1 1	I account or on		TION: Signatur	e below d all notices and	Sub Total	\$8/5	.00
a weighmaster whose sig	onature is on this certific	ribed commodity was weighe cate, who is a recognized auti	nority of accuracy,	as disclaim	ers and agree to ECEIVED BY		Taxes	\$82	. 54
Professions Code, admir	nistered by the Division	tion 12700) of Division 5 of of Measurement Standards of	of the California	siness and LOAD R	ECEIVED BY		Total Ticket	\$955	9/1
Department of Food and	d Agriculture.	rus		xVM	Mardre		Other Chgs.	4333	104
Deputy Weighmaster Measured/Weighed at 1	227 Greenville, Road, I	ivermore, CA 94550		Property	Damage Rele	ase Authorized			
V. Alberton and Books and	- The state of the		and the same	X			Total	\$1.911	. 88

NOTES: 1. All traffic controls, flagmen, etc. are the responsibility and liability of the purchaser, and must conform to all applicable laws.

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Phone No. 925,449,7785 Fax No. 925,449,1691 1227 Greenville Road Livermore, CA 94550

Slump

\$955.94

867

Other Chgs.

Grand

Total

CAUTION **TERMS & CONDITIONS** May cause eye or skin irritation. Contains Portland cement. Freshly mixed cement, mortar,

1. Avoid all contact with eyes.

concrete, or grout may cause skin injury.

2. Avoid prolonged Contact with skin. Wear rubber gloves and boots.

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. We make all deliveries inside street side curb only and accept no responsibility for damage made inside lot.

A confined washout area must be provided and buyer assumes all responsibility and liability for cleaning the washout area.

3. All orders COD are to be paid by Cash, Visa, or Master Card,

unless otherwise authorized.

There will be a \$35 charge on all returned checks. Charge account balances are to be paid within 30 days of the original delivery date; all past due balances will result in all loss of discount, and subject to finance charges equal to 1-1/2% per month (18% APR). SEE NOTES & NOTICES BELOW

NOTICE TO PROPERTY OWNERS: Do Not rely upon this invoice as proof of payment. Property owners should be aware of all mechanic Lien laws. Customer further agrees to pay for expenses and costs including court & attorney's fees in connection with the collection of account. Chargeable Min. @\$1.50/Min. (M-F) Arrive Job Start Pour Finish Pour Total Min. Arrive Plant @\$2.00/Min. (Sat.) 30 Ticket No. Allowable COD (Yes/No) Batch Time Acct. No. Driver Truck Date Min. 11:0919 Delivery Address: 7544 Sold To: MAGN *C*O*D* CASH ON DELIVERY 580 W.R>SAN RAMON R>DUBLIN R>GOLDEN 916-471-8210 GATE L>ST. PATRICK By Whom:

1030-1130

- 1										
	Quantity This Load	Unit	Product Code	Description		Quantity Ordered	Quantity Delivered	P	rice Per Unit	Price Delivered
	9.00	YD	CDLTL	CONTROL DENSITY FI	15	0.00	27.00	592	2.00	\$828.00
	9.00	EA	SURCH1	ENVIROMENTAL FEE	13	0.00	27.00	\$5.	00	\$45.00
										4077 00
	WEIGHMASTER O			ed commodity was weighed, measured or country	of bu		: Signature below	and	Sub Total	\$075.00
THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as						disclaimers and agree to all terms.			Taxes	\$82.94
				n 12700) of Division 5 of the California Busine Measurement Standards of the California	ss and	LOAD RECEI	VED BY		Total Ticket	ACCE 01

Department of Food and Agricult

Deputy Weighmaster

PO No.

Measured/Weighed at 1227 Greenville, Road, Livermore, CA 94550

Property Damage Release Authorized

Water Added @ Job

NOTES: 1. All traffic controls, flagmen, etc. are the responsibility and liability of the purchaser, and must conform to all applicable laws.

- 2. RC Readymix Co., Inc. makes NO guarantees or warranties with respect to product's finished appearance, color, uniformity, cracks or popouts.
- 3. Any additional water added to this concrete will alter the water to cement ratio, and therefore reduce the strength.
- 4. This concrete is designed in accordance with ACI standards; any additional water added is at purchaser's risk.
- 5. RC Readymix Co., Inc. provides 5 minutes free per yard. Excess time will be charged at the standby rate.



Deputy Weighmaster

Measured/Weighed at 1227 Greenville, Road, Livermore, CA 94550



Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

Grand

Total

3.823.76

Property Damage Release Authorized

CAUTION **TERMS & CONDITIONS** May cause eye or skin irritation. Contains Portland cement. Freshly mixed cement, mortar, By accepting delivery buyer agrees to the following terms: concrete, or grout may cause skin injury. 1. We make all deliveries inside street side curb only and accept no responsibility for damage made inside lot. 1. Avoid all contact with eyes. 2. A confined washout area must be provided and buyer assumes all 2. Avoid prolonged Contact with skin. Wear rubber gloves and boots. responsibility and liability for cleaning the washout area. 3. All orders COD are to be paid by Cash, Visa, or Master Card, 3. FLUSH THOROUGHLY WITH CLEAN WATER if direct contact to skin or eves. unless otherwise authorized. 4. Seek medical attention if irritation persists. There will be a \$35 charge on all returned checks. 5. KEEP CHILDREN AWAY. Charge account balances are to be paid within 30 days of the original delivery date; all past due balances will result in all loss of 6. WARNING: THIS PRODUCT CONTAINS ONE OR MORE CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER discount, and subject to finance charges equal to 1-1/2% per month (18% APR). SEE NOTES & NOTICES BELOW REPRODUCTIVE HARM. NOTICE TO PROPERTY OWNERS: Do Not rely upon this invoice as proof of payment. Property owners should be aware of all mechanic Lien laws. Customer further agrees to pay for expenses and costs including court & attorney's fees in connection with the collection of account. Chargeable Min. @\$1.50/Min. (M-F) Arrive Job Start Pour Finish Pour Total Min. Arrive Plant @\$2.00/Min. (Sat.) Ticket No. COD (Yes/No) Allowable Date Truck 11:28 OD 45 136 10/19/2019 Sold To: MAGNUS Delivery Address: 7544 DUBLIN *C*O*D* CASH ON DELIVERY 580 W.R>SAN RAMON R>DUBLIN R>GOLDEN 916-471-8210 GATE L>ST. PATRICK PO No. Water Added @ Job By Whom: Slump 1030-1130 Quantity This Product Description Quantity Price Delivered Quantity DENSITY 9.00 YD 130,00 36,00 \$828.00 9.00 SURCH1 ENVIROMENTAL FEE EA 130.00 36.00 \$45.00 \$875.00 Sub Total WEIGHMASTER CERTIFICATE ATTENTION: Signature below THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by indicates that I have read all notices and \$82.94 Taxes a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as disclaimers and agree to all terms. prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture. LOAD RECEIVED BY Total Ticket \$955.94 Other Chgs.

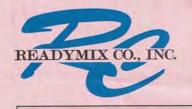
NOTES: 1. All traffic controls, flagmen, etc. are the responsibility and liability of the purchaser, and must conform to all applicable laws.

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5. RC Readymix Co., Inc. provides 5 minutes free per yard. Excess time will be charged at the standby rate.



Deputy Weighmaster

Measured/Weighed at 1227 Greenville, Road, Livermore, CA 94550

CAUTION



Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

TERMS & CONDITIONS

Grand

Total

4.779

Property Damage Release Authorized

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CAUTION



Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

TERMS & CONDITIONS

1. Avoid all contact 2. Avoid prolonged 3. FLUSH THOR 4. Seek medical att 5. KEEP CHILDE 6. WARNING: THE STATE OREPRODUCT	1. We make all deliveries inside street side curb only and accept no responsibility for damage made inside lot. 2. A confined washout area must be provided and buyer assumes all responsibility and liability for cleaning the washout area. 3. All orders COD are to be paid by Cash, Visa, or Master Card, unless otherwise authorized. 4. There will be a \$35 charge on all returned checks. Charge account balances are to be paid within 30 days of the original delivery date; all past due balances will result in all loss of discount, and subject to finance charges equal to 1-1/2% per month (18% APR). SEE NOTES & NOTICES BELOW										
Lien laws. Custon	NOTICE TO PROPERTY OWNERS: Do Not rely upon this invoice as proof of payment. Property owners should be aware of all mechanic Lien laws. Customer further agrees to pay for expenses and costs including court & attorney's fees in connection with the collection of account.										
Arrive Jobs	Start Pour	Finish Pour	Total Min.	@\$1.50	ble Min. /Min. (M-F) /Min. (Sat.)	Arrive Plant					
COD (Yes/No)	Batch Time	Acct. No.	Allowable Min.	Driver	Truck No.	Da	ite		Γicket No.		
Υ	12:08	COD	45	RAY	137	10/19	/2015	1743	7 98		
Sold To: MAGNUS *C*O*D* CASH ON DELIVERY 916-471-8210 Delivery Address:7544 DUBLIN BLVD DUB 580 W.R>SAN RAMON R>DUBLIN R>GOLDEN GATE L>ST.PATRICK											
PO No.		Load No. 6 Info	1030-	-1130 ×	ater Added @ Job gals.		By Whom	:	Slump 5.00		
Quantity This Load	Jnit Product Code	Descrip	otion	Quantity Ordered	Delivered		Price P	er Unit	Price Delivered		
9.00 Y	D CDF1F	CONTROL DE	NSITY	1 130.00	00 54.00 \$9		\$92.0		\$828.00		
9.00 E	A SURCH1	ENVIROMENT	AL FEE	130.00	54.0	U	\$5.00		\$45.00		
WEIGHMASTER CER THIS IS TO CERTIFY		ibed commodity was weighe	d, measured or cou		TION: Signature es that I have read		and	ıb Total	\$873,00		
a weighmaster, whose sig	mature is on this certific	ate, who is a recognized auth tion 12700) of Division 5 of	ority of accuracy,	as disclain	ners and agree to RECEIVED BY			Taxes	402.54		
	istered by the Division	of Measurement Standards o			-			al Ticket	\$955.94		
BY: \$ 101	IMA	11	;	X	7/64		Oth	ner Chgs.			
Deputy Weighmaster Measured/Weighed at 12	227 Greenville, Road, L	ivermore, CA 94550		Proper X_	ry Damage Relea	ise Authoriz		Grand Total	\$5,735.64		
2. RC Read 3. Any addi	lymix Co., Inc. make tional water added to	te. are the responsibility a es NO guarantees or warr or this concrete will alter the coordance with ACI stand	ranties with resp he water to cem-	ect to product's hair ent ratio, and theref	shed appearance, core reduce the stre	olor, unitorn ngth.	ws. nity, cracks	or popouts.			

"Our Service is Concrete"

5. RC Readymix Co., Inc. provides 5 minutes free per yard. Excess time will be charged at the standby rate.



CAUTION



Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

TERMS & CONDITIONS

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Property Damage Release Authorized

Grand

Total

.691

3. Any additional water added to this concrete will alter the water to cement ratio, and therefore reduce the strength.

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5. RC Readymix Co., Inc. provides 5 minutes free per yard. Excess time will be charged at the standby rate.

Measured/Weighed at 1227 Greenville, Road, Livermore, CA 94550



REPRODUCTIVE HARM.



Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

CAUTION May cause eye or skin irritation. Contains Portland cement. Freshly mixed cement, mortar, concrete, or grout may cause skin injury. 1. Avoid all contact with eyes. 2. Avoid prolonged Contact with skin. Wear rubber gloves and boots. 3. FLUSH THOROUGHLY WITH CLEAN WATER if direct contact to skin or eyes. 4. Seek medical attention if irritation persists. 5. KEEP CHILDREN AWAY. 6. WARNING: THIS PRODUCT CONTAINS ONE OR MORE CHEMICALS KNOWN TO

THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER

2. A confined washout area must be provided and buyer assumes all responsibility and liability for cleaning the washout area.

3. All orders COD are to be paid by Cash. Visa, or Master Card, unless otherwise authorized.

By accepting delivery buyer agrees to the following terms:

TERMS & CONDITIONS

We make all deliveries inside street side curb only and accept no responsibility for damage made inside lot.

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Charge account balances are to be paid within 30 days of the original delivery date; all past due balances will result in all loss of discount, and subject to finance charges equal to 1-1/2% per month (18% APR). SEE NOTES & NOTICES BELOW

NOTICE TO PRO Lien laws. Custon	OPERTY OWNE ner further agree	RS: Do Not rely upon s to pay for expenses	on this invoice and costs in	ce as proof o	f paym	ent. Proper torney's fees	ty owners sho s in connectio	ould be aware o	f all mecl ection of	nanic account.
Arrive Job	Start Pour	Finish Pour	Total Min.	@\$1		Min. in. (M-F) in. (Sat.)	Arrive Plant			
COD (Yes/No)	Batch Time	Acct. No.	Allowable Min.	Drive	er	Truck No.	Date		Ticket N	0.
Υ	12:58	COD	45	TRENT	N	136	10/19/2	015 1743	45	
Sold To: MAGN *C*0*D* (916-471-	CASH ON D	ELIVERY		Delivery A 580 W GATE	.R>S		UBLIN B ON R>DU CK	LVD DU BLIN R>G	B OLDEN	
PO No.		Load 8 Job No. 8 Info	1030-	-1130	Water	Added @ Job gals.	By	Whom:	Slump	5.00
Load	Unit Product Code	Descrip	tion .	Quar Orde			ntity vered	Price Per Unit	Price D	elivered
9.00 9	D CDF1F	CONTROL DE	NSITY	1 130.	00	72.0	0 \$9	2.00	\$828	
9.00 E	A SURCH1	ENVIROMENT	AL FEC	130.	OU .	72.0	0 \$5	.00	\$40	.00
WEIGHMASTER CERTIEV		ibed commodity was weighed	l measured or rou	AT ind	TENTIC	N: Signature	below all notices and	Sub Total		3.00
a weighmaster, whose sig	nature is on this certific	ate, who is a recognized auth ion 12700) of Division 5 of	ority of accuracy,	as disc	claimers	and agree to a EIVED BY		Taxes	\$8	2.94
	istered by the Division of	of Measurement Standards of		incs and LO	AD REC	LIVED DI		Total Ticket	\$0E	5.94
BY: TO C	The state of the s	leur		X	(lesh	u Well	lan .	Other Chgs.	A30	2.34
Deputy Weighmaster Measured/Weighed at 12	227 Greenville, Road, Li	vermore, CA 94550		Pro X_	perty D	amage Relea	se Authorized	Grand Total	\$7,64	7.52
		c, are the responsibility a						cracks or popours		

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CAUTION



Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

TERMS & CONDITIONS

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"Our Service is Concrete"

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Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

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"Our Service is Concrete"

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Phone No. 925.449.7785 Fax No. 925.449.1691 1227 Greenville Road Livermore, CA 94550

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NOTICE TO PROPERTY OWNERS: Do Not rely upon this invoice as proof of payment. Property owners should be aware of all mechanic Lien laws. Customer further agrees to pay for expenses and costs including court & attorney's fees in connection with the collection of accounts.

4	Lich laws. Custon	ner further agree	s to pay for expe	elises and costs in	cluding court & a	ttorney's ree	s in connection w	vitil the conection of account.	
1	Arrive Job	Start Pour	Finish Pour	Total Min.	Chargeable Min. @\$1,50/Min. (M-F) @\$2.00/Min. (Sat.)		Arrive Plant		
ı	200	200	330		@\$2.00/IV	lin. (Sat.)			
	COD (Yes/No)	Batch Time	Acct. No.	Allowable Min.	Driver	Truck No.	Date	Ticket No.	
	Υ	14:19	COD	45	AL		10/19/201		
	Sold To: MAGNI				Delivery Address	s:7544 D	UBLIN BLV	D DUB	
ı	*C*O*D* (ELIVERY		580 W.R>SAN RAMON R>DUBLIN R>GOLDEN				
	916-471-8	8210			GATE L>ST.PATRICK				
ı	20.11		12000	Evel I	-	100000			

PO No.			Load No.	11	Job Info	1030-1	130	Water Ad	dded @ Job gals.	By Whom:	Slump	5.00
Quantity Load		Product Code	1	-	Descript	ion	Quai		Quantity Delivered	Price Per Unit	Price De	elivered
9.00		SURCH1	ENV	IROM	IENT/	NSITY FI AL FEE	99.0		99.00	\$92.00 \$5.00	\$828 \$45	.00
WEIGHMA	STER CERTIFIC	CATE			100		AT	TENTION	: Signature below	Sub Total	\$87	3.00

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as

prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administred by the Division of Measurement Standards of the California

Deputy Weighmaster

Measured/Weighed at 1227 Greenville, Road, Livermore, CA 94550

indicates that I have read all notices and disclaimers and agree to all terms. LOAD RECEIVED BY

Total Ticket \$955.94 Other Chgs. Property Damage Release Authorized Grand

Taxes

Total

\$82.94

515.34

NOTES: 1. All traffic controls, flagmen, etc. are the responsibility and liability of the purchaser, and must conform to all applicable laws.

2. RC Readymix Co., Inc. makes NO guarantees or warranties with respect to product's finished appearance, color, uniformity, cracks or popouts.

3. Any additional water added to this concrete will alter the water to cement ratio, and therefore reduce the strength.

4. This concrete is designed in accordance with ACI standards; any additional water added is at purchaser's risk.

RC Readymix Co., Inc. provides 5 minutes free per yard. Excess time will be charged at the standby rate.



ATTACHMENT F

Final Breakdown of Biopolymer Slurry Demonstration

10-20-2015 well withthe visc. Time 29.8 10:15 AM 29.8 1:11 pm 11:50 Am 2 16' 3 17.6 30.0 12:01 pm 29.4 4 18 5 18 30.0 10 18.5 30.0 12:21 pm Note request By Amer Boug Cattertot



ATTACHMENT G

Central Concrete Supply Co Mix Design

Dublin Apartments

Submittal Number: 31 66 20-0002-00

Title: DDC's - Mix Design

7544 Dublin Boulevard

Dublin

CA 94568

Project ID:

Owner: Dublin Apartment Properties, LLC Construction Team: ZCON Builders

Design Team: BDE



Date Due: 10/20/2015 Date Issued: 10/07/2015 Substitution: No

Information

Types: Design Mixtures

Trades: Geotechnical Engineer, Structural Engir - Garage & Podium

Categories: N/A

Subcontractor/Manufacturer: Farrell Design-Build Co. Inc.

Stamps

ZCON Builders

This substant d has been recurred for ground compliance only as a relace on the CONTRACT DOMERATION. Thus, resists unplus to appear of deviation from the plans and specifications, nor as sponsibility for errors or consistence in the side must. The substant rate that recurred respectively of a deviate separate by the assembly configuration of Lorentz and the afternoon and outliers of the substantial of the sub

Submittal No: 31 66 20-0002-00 Section No: [none]

Date: 10/07/2015 By: Sean McKinley



9/28/2015

Customer Name: FARRELL DESIGN BUILD CO INC

Project Name: DUBLIN PKS 3025 VENTURE ROAD PLACERVILE, CA 95667

Central Concrete Project #:

Central Concrete looks forward to the opportunity to partner with you on another successful project. Enclosed please find the following mix submittals and disclaimers:

Mix #	Usage	Design Strength (psi)		
F0K100G5	SITE CONCRETE	1500		

Enclosed are current proportions for the mix designs intended to be used for your project. Please see the list below including alternate materials that could be used. By approving these designs you acknowledge you are approving the use of these alternate materials.

Cement
Lehigh Permanente
Cal Portland Mojave
CEMEX Victorville

Cal Portland Nanjing

Pozzolan

Salt River Materials Group

Headwaters Resources

Nevada Cement

Slag

Lehigh Nippon

Low Shrink Coarse Aggregate

Granite-Aromas Hanson-Orca Hanson-Clayton CEMEX-Clayton

Lightweight Coarse AggregatesGlass Mountain Pumice

Frazier Park

Respectfully,

Gravel Coarse Aggregate

Vulcan-Pleasanton CEMEX-Eliot Hanson-Sunol Fine Aggregate

Vulcan-Pleasanton Hanson-Orca Hanson-SF Yard Hanson-Oakland Yard

CEMEX-Eliot Hanson-Sunol Vulcan-Pilarcitos

ALEX GILBERTSON-DOBBS



9/28/2015

FARRELL DESIGN BUILD CO INC

ProjectName: DUBLIN PKS

Customer/Project Number:

Project Address: 7544 DUBLIN BOULEVARD

(Please use this number when calling Central to order)

Below are current proportions for the mix designs intended to be used for your project. Please see the cover letter to see the alternate materials that could be used. By approving these design(s) listed you acknowledge you are approving the use of these alternate materials.

Mix # F0K100G5

Mix Description: 5.5sk Snd Slrry

Slump: 8

Usage: SITE CONCRETE

W/CM Ratio: 0.74

Design Strength: 1500 PSI

PLEASANTON (17) Plant:

Material Code	Description	Source Sup	Design Quantity (lbs/cv)	Volume	
Fine Aggregate	ASTM C 33 Fine Agg	Hanson-Oakland		1361 lb	8.32
Fine Aggregate	ASTM C 33 Fine Agg	Vulcan -Pleasanton		1361 lb	8.26
Cement	ASTM C150	Calportland-Nanjing Ch	ina	329 lb	1.67
Fly Ash	ASTM C 618 Class F	SRMG-Four Corners		188 lb	1.51
Water	ASTM C1602	Central Concrete-Centra	l Concrete	46.0 gal	6.15
Admixture	C260: Master Air AE 90	BASF -Cleveland			-
Admixture	C494 Type A,F: Polyheed 9	BASF -Cleveland			-
			Air Target:	4.00 %	1.08
	- A		Totals	36231h	27.00

Optional to be added upon request

Site Fresh	ASTM C 494 Type B & D	2 to 6
Site Set	ASTM C 494 Type C	10 to 45



Concrete Mix Design Submittal

Date: 09/28/2015

No.

44423

Version 1

Mix Code: F0K100G5

Description:

SITE CONCRETE

Sieve Size	Fine AUCSDA	Fine AUCBDA	Combined	Min	Max
2"	100.0	100.0	100.0		
1-1/2"	100.0	100.0	100.0		
1"	100.0	100.0	100.0		
3/ 4 ^{rt}	100.0	100.0	100.0		
1/ 2"	100.0	100.0	100.0		
3/8"	100.0	100.0	100.0	_	[
No. 4	98.0	98.0	98.0		
No. 8	83.0	87.0	85.0	•	
No. 16	55.0	71.0	63.0		
No. 30	31.0	47.0	39.0		
No. 50	13.0	21.0	17.0		
No. 100	4.0	3.0	3.5		1
No. 200	2.2	1.6	1.9		
DRUW lb/ft3					
% Agg	50.0	50.0			
% Fine Agg	50.0	50.0			
SG	2.62	2.64			
FM	2.73	3.16	2.98		

Prepared By:





Hanson Aggregates West Region 12667 Alcosta Blvd. #400 San Ramon, CA 94583 Tel 925 244-6500

OAKLAND CONCRETE SAND

The Oakland Concrete Sand supplied by Hanson Aggregates is extracted from Point Knox Shoals San Francisco Bay and processed at its Oakland, CA facility. The typical physical properties of the aggregate are summarized below. SMARA #'s: 91-38-0003; 91-38-0002

Gradation:	Percer		
	Oakland	Caltrans Spec.	ASTM
Sieve Size	Concrete Sand	Sec. 90	C 33 Spec.
9.50 mm (3/8")	100	100	100
4.75 mm (#4)	98	95 - 100	95 - 100
2.36 mm (#8)	87	65 - 95	80 - 100
1.18 mm (#16)	71 (66)	$56 - 76 (X \pm 10)$	50 - 85
600 µm (#30)	47 (44)	35 - 53 (X ± 9)	25 - 60
300 µm (#50)	21 (20)	14 - 26 (X ± 6)	5 - 30
150 µm (#100)	3 `	2 - 12	0 - 10
75 µm (#200), C 117	1.6	0 - 8	
• • •	(X-value)	
Finance Madulus	0.70		
Fineness Modulus	2.73	-	2.3 - 3.1
Specific Gravity, Bulk S.S.D.	2.62	5	•
Absorption, %	0.5	<u> </u>	17
Dry Rodded Unit Wt., pcf	97.0		-
Sand Equivalent, CTM 217	93	75 Min.	•
Organic Impurities, CTM 213	Clear	S	Clear
Rel. Mortar Strength, C 87, CTM 515	95%	95% Min.	-
Sod. Sulfate Sound, C 214	2.0%	10% Max.	10% Max.
Fine Durability, d. CTM 229	80	60 Min.	
Deleterious Substances:			
Clay & Friables, C 142	1.0%	•	3.0% Max.
Lt. Wt. Particles, C 123	0.4%	-	0.5% Max.
Alkali Reactivity			
ASTM C 289	Innocuous	l l	I

Should you have questions regarding this aggregate material, please do not hesitate to call your Sales Representative.

LEHIGH HANSON

Franco H. Siño

Quality Control Manager

These data have been developed on the basis of information and tests of materials submitted to this laboratory which are assumed to be representative of the materials to be used. All tests have been conducted in compliance with current ASTM or applicable methods of testing. ALL WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, ORAL OR WRITTEN ARE EXCLUDED EXCEPT AS SET FORTH IN HANSON AGGREGATES' STANDARD TERMS AND CONDITIONS OF SALE. NO LIABILITY ARISING OUT OF THE USE OF THESE DATA WILL BE ASSUMED BY THIS CORPORATION.



Pleasanton Plant SMARA 91-01-0010

June, 2015

To:

Subject: 31822 - Top Sand Submittal

Project:

Please find below the laboratory test results. We certify that the fine aggregate produced at our Pleasanton operation meets the requirements of the American Society of Testing and Materials, ASTM C 33 and Caltrans Section 90. Our most recent test data presented for your review:

31822 - TOP SAND

	G	RADATION	
SIEVE SIZE	PERCENT PASSING	ASTM SPECIFICATION	CALTRANS SEC. 90
3/8" (9.5 mm)	100	100 - 100	100
No. 4 (4.75 mm)	99	95 – 100	95 – 100
No. 8 (2.36 mm)	85	80 - 100	65 – 95
No. 16 (1.18 mm)	58	50 - 85	(X=57±10) 47 - 67
No. 30 (600 µm)	33	25 - 60	(X=34±9) 25 - 43
No. 50 (300 µm)	13	5 - 30	(X=16±6) 10 - 22
No. 100 (150 µm)	3	0 - 10	2 – 12
No. 200 (75 µm)	1.6	0-5	0 – 8

PHYSICAL PROPERTIES

ASTM STANDARD	FINE AGGREGATE ASTM C 33
Specific Gravity (SSD)	2.670
Sand Equivalent	80
Absorption	1.2%
Fineness Modulus	3.08
Fine Durability Index	70
ASTM C 88 - Sodium Sulfate Soundness (Fine)	1.3%
ASTM C 117 - Material Finer Than #200	1.60%
ASTM C123 – Light Weight Particles	0.3%
ASTM C142 – Clay Lumps & Friable Particles	0.0%
ASTM C40 Organic Impurities – Standard Color Procedure	(1) Lighter - Satisfactory

Respectfully,

Vulcan Materials Company

Curtis Gilbert Technical Services

^{*}If no customer and/or job name is noted, this submittal expires 90 days from date above.



Certificate of Analysis

CalPortland - Stockton Terminal

230 Port Road #3, Stockton, California, 95203 - Telephone: (209) 469-0109

We herby certify that CalPortland Type II/V Low Alkali cement, sourced from Nanjing China, meets the standard requirements of ASTM C150 specification for Type II and Type V cement. Additionally, the Type II/V cement meets the requirements of Caltrans Standard Section 90-1.02(B). Below are the chemical and physical data pertaining to Lot# 15-222.

ASTM C150 Type II/V Requirements

Ship Name	: Sinfonia				
Report Date	a: 8/10/2015	Type II	Type V	Analysis	
•		Requirements	Regulrements	Results	Limestone
Chemical	Analysis		·		Analysis
Silicon dio	xide (SiO ₂), %		_	20.0	1.6
Aluminum	oxide (Al ₂ O ₃), max, %	6.0	444	3.6	0.8
	e (Fe ₂ O ₃), max. %	6.0	***	3.7	0.2
	xide (CaO), %	_		64.9	53.2
Magnesiun	n oxide (MgO), max. %	6,0	6.0	0.9	0.3
Sulfur triox	ide (SO ₃), max, %	3.0 (1)	2.3 (1)	2.6	0.1
Loss on ig	nition, max, %	3.0	3.0	2.5	
Insoluble r	esidue, max, %	0.75	0.75	0.20	Base
Equivalent	Aikalies, max, %	0.60	0.60	0.49	Cement
Tricalcium	silicate (C ₃ S), %	(3)	_	68	70
Dicalclum -	Slicate (C₂S), %		_	6	6
Tricalcium	aluminate (C ₃ A), max, %	8	5	3	3
Tetracalciu	ım aluminoferrite (C ₄ AF), %		_	11	12
C4AF + 2*(C3A), max,%		trans.	25	18	
CO ₂ , %		-	***	1.6	
Limestone	Addition, max, %	5.0	5.0	3.7	
CaCO ₃ in l	Limestone, min, %	70	70	95	
Physical F	Requirements				
Air content	of mortar, max, volume %	12	12	B.1	
_	ium (#325) sieve, %		***	97.8	
	eness, min, m²/kg	260/	260/	372	
	expansion, max, %	0.8 (2)	0,8 (2)	-0.04	
Compressi	ve strength, min, Mpa [psi]				
3 Day	Mpa	10.0	8.0	27.0	
	psl	1450	1160	3910	
7 Day	Mpa	17.0	15.0	32,8	
	psi	2470	2180	4750	
28 Day	Мра	444	21.0		8/26/2015
	psi		3050		
	tting: Vicat	45 - 375	45 - 375	155	
С1038 ехр	ansion, max, %	0.020	0.020		

Apparatus and methods used in this laboratory have been checked by the Cement and Concrete Reference Laboratory of the National Institute of Standards and Technology. A copy of the report detailing their findings is available upon request. Major Oxides are analyzed by X-ray Fluorescence Spectrometry.

Note 1: ASTM C150, Table 1, Note D, it is permissible to exceed the values in the table for SO₃ content, provided it has been demonstrated by Test Method C1038 that the cement with the increased SO₃ will not develop expansion exceeding 0.020% at 14 days.

Note 2 Californs Specification Sec. 90-1 02B(2): Autoclave expansion shall not exceed 0.50 %.

Note 3 Caltrans Specification Sec. 90-1.02B(2): Type II cement C₃5 content shall not exceed 65%

Gary Kirk

Cement Technical Sales Manager



Clarkdale Cement Plant 601 N. Cement Plant Rd

1802 W. Lower Buckeye Rd

Lower Buckeye Terminal 1941 W. Lower Buckeye Rd Phoenix, AZ 85007 21st Ave. Terminal

Clarkdale, AZ 86324

Phoenix, AZ 85007

1325 N. 21st Ave, Phoenix, AZ 85009

54th Ave. Terminal 5402 W Buchanan St.

Phoenix, AZ 85043

Big Lift Terminal

Littleton, CO 80125

6996 W. Titan Rd

19th Ave. Terminal

Central Concrete Supply Co Inc Attn: Kelly Idiart 830 W Elkhorn Blvd Rio Linda, CA 95673-3006

Product: ASTM C618 Class F, Gallup Fly Ash

AASHTO M295

6-21-15 POZZOLAN TEST REPORT Ctl#: 105407

<u> </u>		40 11.	100 107	
Lot: 770564	Results	Specifica	tions	Dobson Storage 9595 E. McKellips Rd. Scottsdale, AZ 85250
Chemical Analysis (C311/C114/D4326)				Cholla Fly Ash Plant
Silicon Dioxide, SiO ₂	61.61 %			4801 Frontage Rd.
Aluminum Oxide, Al ₂ O ₃	24.15 %			Joseph City, AZ 86032
Ferric Oxide, Fe ₂ O ₃	4.25 %			Four Corners Fly Ash Plant
$SiO_2 + Al_2 O_3 + Fe_2 O_3$	90.01 %	70.00	Min	End of County Road 6675 Fruitland, NM 87416
Calcium Ōxide, CāO Š	2.30 %			San Juan Fly Ash Plant
Magnesium Oxide, MgO	1.14 %			End of County Road 6800
Sulfur Trioxide, SO ₃	0.21 %	5.00	Max	Waterflow, NM 87421
Moisture Content	0.03 %	3.00	Max	Escalante Fly Ash Plant
Loss on Ignition	0.28 %	6.00	Max	County Road 19
Sodium Oxide, Na₂O	1.12 %			Prewitt, NM 87405
Potassium Oxide, K ₂ O	1.14 %			Gallup Transfer Terminal
Total Alkalis (%Na2O + 0.658% K2				900 N 9th St.
Available Alkalis as Na ₂ O Equivalent	0.45 %			Gallup, NM 87301
				San Diego Terminal 920 Bay Marina Dr.
Physical Analysis				National City, CA 91950
Fineness, amount retained on				Fontana Budway Terminal
#325 sieve, % (c430)	23.00	34.00		13600 Napa St.
variation, points from average	0.12	5.00	Max	Fontana, Ca 92335
Density, g/cm ³ (C188)	1.99			Bakersfield Terminal
Variation from average, %	0.03	5.00	Max	32535 7th Standard Rd.
Strength Activity Index				Bakersfield, CA 93314
with Portland Cement (C311/C109)				Stockton Terminal
at 7 days, % of cement control	75.60			1300 N. Gertrude Ave.
at 28 days, % of cement control	89.84	75.00	Min	Stockton, CA 95215
Water Requirement (C311)				Sacramento Terminal 4520 50th St.
% of cement control	95.87	105.00	Max	McClellan Park, CA 95652
	C311 / C151)	0.00		Panaca Pozzolan Plant
or contraction, %	-0.02	0.80	Max	333 Hansen St.
				Panaca, NV 89042

All tests have been made in strict accordance with the current standards of the American Society for Testing and Materials covering the type of material specified.

Lee Gorby, Quality Assurance Manager 03 AUG 2015





A U.S. CONCRETE COMPANY EM

Product: Mixing water used in the Production of Ready Mix Concrete

8/1/2015

Water Test Report

Density: The water density for all Central Concrete production facilities are monitored with an automated device conforming to ASTM C 1603. Documentation of procedures and calibration are maintained at each production facility and can be made available upon request.

TABLE 1 Performance Requirements for Mixing Water

	Limits
Compressive strength, min % control a 7 days ⁴	90
Time of setting, deviation from control, h: min ⁴	From 1:00 earlier to 1:30 tater

*Comparisons shall be based on fixed proportions for concrete or mortar mixtures. The control mixture shall be made with 100 % potable or distilled water. The test mixture shall be made with the mixing water that is being evaluated, (See Annex A1).

Compressive Strength

		1 2 2		
	Mix Design	Specific Gravity	Control	Gray
11-Aug-14	450PC5C1	1.09	100%	103%
29-Oct-14	6081	1.10	100%	119%
18-Nov-14	604CC	1.09	100%	101%
12-Dec-14	330PG9Q1	1.09	100%	105%
21-Jan-15	6012	1.07	100%	106%
17-Feb-15	3E5EC9D1	1.06	100%	105%
20-Mar-15	3E5EG9E1	1.03	100%	104%
22-Apr-15	356EG9C1	1.06	100%	99%
24-Jun-15	350PG9E1	1.08	100%	97%
17-Jul-15	4E5EC5C1	1.08	100%	97%

Time of Setting

			1	
	Mix Design	Control	Gray	Deviation from Control
11-Aug-14	450PC5C1	5.00	4.65	-0.21
29-Oct-14	6081	3.60	3.85	0:15
18-Nov-14	604CC	2.85	3.03	0:12
12-Dec-14	330PG9Q1	4.72	4.13	-0:35
21-Jan-15	6012	4.97	4.72	-0:15
17-Feb-15	3E5EC9D1	3.15	3.00	-0:25
20-Mar-15	3E5EG9E1	4.63	4.45	-0:11
22-Apr-15	356EG9C1	4.33	4.21	-0:07
24-Jun-15	350PG9E1	4.50	4.08	-0:25
17-Jul-15	4E5EC5C1	4.50	4.08	-0:25

TABLE 2 Optional Chemical Limits for Combined Mixing Water^a

	Limits	Test Method
Maximum concentration in combined mixing water, ppm [®]		
A. Chlonde as CI, ppm		
1 in prestressed concrete, bridge decks, or otherwise designated	\$00 ^C	C114 [©]
2 other reinforced concrete in moist environments or containing aluminum	1000 [©]	C114 ^D
embedments or desimilar metals or with stay-in-place palvanized metal		
forms		
B. Sulfate as SO ₄ , ppm	3000	C114 ⁸³
C. Alkalies as (Na,O + 0 658 K,O), pgm	600	C114 ^D
D. Total solids by mass, ppm	50 000	C1603

Corporate Office 755 Stockton Avenue San Jose, CA 95126

West Bay San Jose 790 Stockton Avenue 889 Stockton Avenue 457 Queens Lane

South San Francisco 1305 San Mateo Avenue

Redwood City 635 Seaport Avenue

East Bay Martinez 893 Waterbird Way

Pleasanton 1645 Stanley Boulevard

Oakland 2400 Peralta Street 401 Embarcadero Street

Hayward 1844 W. Winton Avenue

Brentwood 11911 Brentwood Boulevard

Bode San Francisco 450 Amador Way



November 25, 2014

Central Concrete Supply

Attention: Mike Donovan

Certificate of Conformance

MasterAir® AE 90 Admixture (formerly MB-AE 90)

BASF Corporation Air-Entraining Admixture for Concrete"

I, Richard Hubbard, Sr. Technical Marketing Specialist for BASF Corporation, Cleveland, Ohio, certify:

That MasterAir AE 90 admixture is a BASF Corporation Air-Entraining Admixture for concrete; and

That MasterAir AE 90 and MB AE 90 admixture are the same product having identical composition, differing only in designation; and

That no calcium chloride or chloride based ingredient is used in the manufacture of MasterAir AE 90 admixture; and

That MasterAir AE 90 admixture, based on the chlorides originating from all the ingredients used in its manufacture, contributes less than 0.000068 percent (0.68 ppm) chloride ions by weight of the cement when used at the rate of 65 mL per 100 kg (1 fluid ounce per 100 pounds) of cement; and

That MasterAir AE 90 admixture meets the requirements of ASTM C260, the Standard Specification for Air-Entraining Admixtures for Concrete, as well as the requirements for air-entraining admixtures as specified in Corps of Engineers' CRD-C 13 and AASHTO M154.

Richard Hubbard

Sr. Technical Marketing Specialist

Richard Jubbard III





November 25, 2014

Central Concrete Supply

Attention: Mike Donovan

Certificate of Conformance

MasterPolyheed® 997 Admixture (formerly PolyHeed 997)

BASF Corporation Admixture for Concrete

I, Richard Hubbard, Sr. Technical Marketing Specialist for BASF Corporation, Cleveland, Ohio, certify:

That MasterPolyheed 997 admixture is a BASF Corporation Mid-Range Water-Reducing Admixture for concrete; and

That MasterPolyheed 997 and PolyHeed 997 admixture are the same product having identical composition, differing only in designation; and

That no calcium chloride or chloride based ingredient is used in the manufacture of MasterPolyheed 997 admixture; and

That MasterPolyheed 997 admixture, based on the chlorides originating from all the ingredients used in its manufacture, contributes less than 0.00012 percent (1.2 ppm) chloride ions by weight of the cement when used at the rate of 65 mL per 100 kg (1 fluid ounce per 100 pounds) of cement; and

That MasterPolyheed 997 admixture meets the requirements for a Type A, Water-Reducing Admixture, and Type F, Water-Reducing, High Range Admixture specified in ASTM C494/C494M, the Standard Specification for Chemical Admixtures for Concrete, as well as the requirements of Type A and Type F admixtures as specified in Corps of Engineers' CRD-C 87 and AASHTO M194.

Richard Hubbard

Sr. Technical Marketing Specialist

Richard Hubbard III





ATTACHMENT H

Potrero Hills Landfill Special Waste Profile, Disposal Log, & Manifests

Potrero Hills Landfill 3675 Potrero Hills Lane

Suisun, CA 94585 Phone: 707.432.4622 Fax: 707.426.5013



FOR OFFICE USE ONLY
APPROVAL NUMBER:
EXPIRATION DATE:
APPROVED BY:

SPECIAL WASTE PROFILE

Information utilized for completion of this form must originate from an authorized representative of the generator of the waste material. The information on this form must be COMPLETELY FILLED OUT, TYPE WRITTEN, and the form must be SIGNED BY AUTHORIZED REPRESENTATIVE.

A. GENERATOR INFORMATION		B. CUSTOMER/BILLING INFORMATION		
Generator Name: DUBLIN APARTMENT PROPERTIES LLC#		1. Billing Name: Bradley Tanks, Inc		
2. Address: 2 Henry Adams Street, Suite 450		2. Address: 402 Hartz Avenue, Building C		
City: San Francisco	County:	City: Danville	County: Contra Costa	
State: CA	Zip: 94103	State: CA	Zip: 94526	
3. Site Location (if different): 7544 Dublin Blvd, Dublin, CA		3. Contact Name: Kelly Graser		
4. Contact Name: Adam Lambert		4. Phone Number: 510-207-9927	5. Fax Number: 510-803-5084	
5. Phone Number: 415-509-1441	6. Fax Number:	6. Email Address: kgraser@btienviron	mental.com	
7. Email Address: adam@baywestdev	velopment.com	7. Is there a service agreement on file	? □YES □ NO	
8. State Facility ID # (if applicable): N/A	1	8. Agent / Consultant:		
9. State Waste Code (if applicable): N/	A	9. Letter of Authorization: YES	NO	
C. TRANSPORTER/SHIPPI	NG INFORMATION	D. WASTE STREAM INFOR	MATION	
Name: Bradley Tanks, Inc		Common Name of Material or Wast	e Stream: Non-hazardous Soil	
2. Street Address: 402 Hartz Avenue,	Building C			
City: Danville State:		2. Detailed Description of Process or F		
3. Phone Number: 510-207-9927	4. Fax Number: 510-803-5084	Soil Excavated to install undergrour groundwater contaminated w/ fuel and	d PRB wall to treat/keep VOCs from entering residential site	
5. Contact Name: Jessica Carr		3. Physical State at 70°F: ⊠ Solid [☐ Semi-Solid ☐ Sludge	
6. EPA or State Transporter ID #: CAF	R000224568	Liquid Powder Othe	r	
7. Designated Landfill(s): Potrero Hills	LF	4. Free Liquids: NO ☐ YES %	Liquids	
8. Packaging: Bulk Solids Bu		5. Color: Brown	6. pH Range: N/A	
☐ Dump Truck ☐ Tank Truck ☐		7. Odor: ☑ None ☐ Mild ☐ Significant Describe:		
9. Estimated Volume: 600		8. Flash Point: N/A ☐ °F ☐ °C		
☐ ☐ Cubic Yards ☐ Dru	ms Gallons Other:	9. Reactive: ⊠ NO ☐ YES with		
10. Shipping Frequency: p Month	er 🔲 One Time Project 🔲 Other:	10. State Required Information (if applicable): N/A		
	E. NON-HAZARDOUS	DETERMINATION		
1. Attached Document(s) (check all that	at apply): 🗌 Not Applicable 🗌 MSDS 🔀	Certified Analytical Report	Knowledge	
2. If Process Knowledge, provide detail	ls: Gasoline, diesl and VOCs are from off-	site source - source of VOCs is unkno	wn	
	data derived from testing a representative sa of Sample: 🔲 Composite 🔲 Grab	mple in accordance with 40 CFR 261 and	d/or other applicable laws?	
	F. CERTIFICATION	INFORMATION		
Initial ☐ Recertification, list p		endment, Details:		
	e composition of, or process generating this v	waste stream that would alter the charact	eristics of the waste stream?	
	G. WASTE CERTIFICA			
I hereby certify that all information contained herein is true and correct, and the material described is properly identified, classified, packaged, labeled, and prepared as indicated. certify this waste is not hazardous or dangerous as defined by the U.S. EPA, or the state or province of origin. I certify this waste does not contain any regulated radioactive materials, that all known and suspected hazards have been disclosed, and that the waste is not a regulated hazardous waste by government or local authority, and does not contain PCB's regulated by TSCA or any other regulatory authority. I certify that all samples used for this analysis are representative of the materials described herein. I understand that a wastes may undergo inspection upon arrival at the designated facility and may be refused if the delivered material does not conform to the description herein. Notification will be provided immediately if there is a change in the composition of, or process generating this waste stream, prior to offering the waste for shipment or management.				
Adam Lambert owner rep		Bay West Develop	oment	
AUTHORIZEUR PRESENTATIVE SIGNATURE		10-21-15 DATE COMPLETED		



Magnus Pacific Dublin Apartments Project Non-Hazardous Soil to Potrero Hills Landfill

Total Tons 742.56 Total Loads 31

Date	Approval	Ticket	Tons
10/26/2015	PHLF15663	612731	19.42
10/26/2015	PHLF15663	612758	25.46
10/26/2015	PHLF15663	612764	25.02
10/26/2015	PHLF15663	612765	25.12
10/26/2015	PHLF15663	612773	23.58
10/26/2015	PHLF15663	612778	23.88
10/26/2015	PHLF15663	612852	24.52
10/26/2015	PHLF15663	612861	23.78
10/26/2015	PHLF15663	612873	23.05
10/26/2015	PHLF15663	612889	25.93
10/26/2015	PHLF15663	612890	23.07
10/26/2015	PHLF15663	612894	23.15
10/27/2015	PHLF15663	613059	22.58
10/27/2015	PHLF15663	613070	22.94
10/27/2015	PHLF15663	613075	24.18
10/27/2015	PHLF15663	613100	22.72
10/27/2015	PHLF15663	613105	26.91
10/27/2015	PHLF15663	613109	23.73
10/27/2015	PHLF15663	613112	25.57
10/27/2015	PHLF15663	613120	24.11
10/27/2015	PHLF15663	613182	23.27
10/27/2015	PHLF15663	613190	23.76
10/27/2015	PHLF15663	613207	23.50
10/27/2015	PHLF15663	613217	22.77
10/27/2015	PHLF15663	613219	24.28
10/27/2015	PHLF15663	613226	22.91
10/27/2015	PHLF15663	613267	24.25
10/27/2015	PHLF15663	613283	27.90
10/28/2015	PHLF15663	613428	23.06
10/28/2015	PHLF15663	613449	25.57
10/28/2015	PHLF15663	613526	22.57

WASTE MANIFEST	Generator D Number		mergency Respon	-35347		racking Numb	2827
AND A TOTAL TOTAL STATE OF THE	ing Addresslin Apartment Proper 2 Henry Adams Streen, Su San Francisco, CA 94103	ike 450	erator's Site Addr	ess (if different the	nan mailing addr	ess)	
enerator's Phone; Transporter 1 Company Na	aley Thur	I, THE			U.S. EPA ID	CO	MA456
Transporter 2 Company Na	ame				0.0.2,777	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Designated Facility Name a	3675 Potnero H				U.S. EPA ID	Number	A
acility's Phone:			10. C	ontainers	11. Total	12. Unit	
9. Waste Shipping Nar	me and Description		No.	Туре	Quantity	Wt./Vol.	
1. Non-Ha	azardous Sori		1	EIT	BE	CY	
2.							
3.							
4,							
	at #PHLP-15-663 # for ER phone # is BR31029						
GENERATOR'S/OFFER marked and labeled/plac Generator's/Offerôr's Printed	A FOR ER. price # Is ER3 1039 OR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition	ne contents of this consignment are in for transport according to applicable Signal	e internationar and	y described above d national govern	ve by the proper imental regulatio	shipping name	
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper conditions of Typed Name	n for transport according to applicable Signal	e internationar and	o national govern	e by the proper mental regulation	shipping name	
4. GENERATOR'S/OFFER marked and labeled/plac generator's/Offeror's Printed 5. International Shipments Transporter Signature (for e.	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper conditions of the conditions of the conditions of the carded in the	n for transport according to applicable	e internationar and ure Port	y described above d national govern	e by the proper mental regulatio	shipping name	
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e. 16. Transporter Acknowledge)	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition d/Typed Name Import to U.S. Exports only): gment of Receipt of Materials	n for transport according to applicable Signal	e international and ure Port Date	of entry/exit:	e by the proper mental regulation	shipping name	Month Day
4. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 5. International Shipments Fransporter Signature (for each of the Company of the	ROR'S CERTIFICATION: I hereby declare that it carded, and are in all respects in proper condition d/Typed Name Import to U.S. exports only): gment of Receipt of Materials I Name	n for transport according to applicable Signal	e international and ure Port Date	of entry/exit:	e by the proper	shipping name	Month Day
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e. 16. Transporter Acknowledg Transporter 1 Printed/Typed Transporter 2 Printed/Typed	ROR'S CERTIFICATION: I hereby declare that it carded, and are in all respects in proper condition d/Typed Name Import to U.S. exports only): gment of Receipt of Materials I Name	Export from U.S	e international and ure Port Date	of entry/exit:	re by the proper	shipping name	Month Day
4. GENERATOR'S/OFFER marked and labeled/plac generator's/Offeror's Printed 5. International Shipments 15. International Shipments 16. Transporter Signature (for e. 16. Transporter 1 Printed/Typed Transporter 2 Printed/Typed 17. Discrepancy	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition of d/Typed Name Import to U.S. Exports only): Ignerit of Receipt of Materials Is Name	Export from U.S	e international and ure Port Date	of entry/exit: e leaving U.S.:	mental regulatio	shipping name	Month Day Month Day Month Day
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed Generator's/Offeror's Printed Transporter Signature (for electronsporter 1 Printed/Typed Transporter 2 Printed/Typed Transporter 3 Printed/Typed Trans	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition of Typed Name Import to U.S.	Export from U.S	e international and ure Port Date	of entry/exit:e leaving U.S.:	Partial	ris.	Month Day
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed To 15. International Shipments 15. International Shipments 16. Transporter Signature (for e. 16. Transporter 1 Printed/Typed Transporter 2 Printed/Typed Transporter 2 Printed/Typed 17. Discrepancy Indication 17b. Alternate Facility (or Giffacility's Phone:	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition of Typed Name Import to U.S. Exports only): Imment of Receipt of Materials I Name Ouantity I Space Quantity	Export from U.S	Port Date	of entry/exit:e leaving U.S.:	Partial	Rejection	Month Day Month Day Month Day Full Rejection
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e. 16. Transporter Acknowledg Transporter 1 Printed/Typed 17. Discrepancy 17a. Discrepancy Indication 17b. Alternate Facility (or G. 17b. 17b. Alternate Facility (or G. 17b. 17b. 17b. 17b. 17b. 17b. 17b. 17b	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition of Typed Name Import to U.S. Exports only): Imment of Receipt of Materials I Name Ouantity I Space Quantity	Export from U.S	Port Date	of entry/exit:e leaving U.S.:	Partial	Rejection	Month Day Month Day Month Day
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e. 16. Transporter Acknowledg Transporter 1 Printed/Typed 17. Discrepancy 17a. Discrepancy Indication 17b. Alternate Facility (or G. Facility's Phone:	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition of Typed Name Import to U.S. Exports only): Imment of Receipt of Materials I Name Ouantity I Space Quantity	Export from U.S	Port Date	of entry/exit:e leaving U.S.:	Partial	Rejection	Month Day Month Day Month Day Full Rejection
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e 16. Transporter Acknowledg Transporter 1 Printed/Typed 17. Discrepancy 17a. Discrepancy Indication 17b. Alternate Facility (or G Facility's Phone: 17c. Signature of Alternate	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition of Typed Name Import to U.S. Exports only): Imment of Receipt of Materials I Name Ouantity I Space Quantity	Export from U.S Signal Signal Type	Port Date ure Residue Manifest Refere	of entry/exit:e leaving U.S.:	Partial	Rejection	Month Day Month Day Month Day Full Rejection

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	4.2	. Emergency Respo	3420		racking Num	ber
5. Generator's Name and M	alling Address in Apartment Propert 2 Henry Adams Street, Sui San Francisco, CA 94103	ite 450	enerator's Site Add	ress (if different,	han mailing add	ress)	
Generator's Phone: 6. Transporter 1 Company 1		uckin	3/		U.S. EPA ID	Number	10/68779
Transporter 2 Company N	Name		0		U.S. EPA ID) Number	
B. Designated Facility Name	and Site Address Pourro Filts 3675 Potrero				U.S. EPA ID) Number	
Facility's Phone:		4585 707-432-4527			1	14/	A
	ame and Description		10. C	ontainers Type	11. Total Quantity	12. Unit Wt./Vol.	
t. Han-H	arandeus Sort		1	DT	18	CA	
2.							
3.							
4,							
marked and labeled/pla	ROR'S CERTIFICATION: I hereby declare that acarded, and are in all respects in proper condit	tion for transport according to applica	ble international and	y described above	e by the proper mental regulatio	shipping name	
Generator's/Offeror's Printe	1 / /	Sign	ature				Month Day Yes
15. International Shipments Transporter Signature (for	import to U.S.	Export from U		of entry/exit: leaving U.S.:			
16. Transporter Acknowled Transporter 1 Printed/Type	Igment of Receipt of Materials and Name	Sign	nature A	in	3	2	Month Day Ye
Transporter 2 Printed/Type	ed Name	Sign	nature				Month Day Ye
17. Discrepancy 17a. Discrepancy Indicatio	n Space Quantity	Туре	Residue		Partial	Rejection	Full Rejection
17b. Alternate Facility (or (Generator)		Manifest Refere	ence Number:	U.S. EPA	ID Number	
Facility's Phone; 17c. Signature of Alternate	Facility (or Generator)						Month Day Ye
18. Designated Facility Ov Printed/Typed Name	vner or Operator: Certification of receipt of mate		t as noted in Item 17	7a			Month Day Ye
i Ennied/Typed Name							

NON-HAZARDOUS WASTE MANIFEST	1, Generator ID Number		ergency Respo	-3330		racking Nun	nber 2831
6. Generator's Name and Mail	Ing Address im Apartment Prop 2 Manry Adams Street, S San Francisco, CA 9410	suite 450	2.0	ress (if different t	nan mailing addi	ress)	
Generator's Phone: 6. Fransporter 1 Company Na	ma				U.S. EPA ID	Number	
o Transporter i Company iva	SS BAI	VS					
7. Transporter 2 Company Na		Y			U.S. EPA ID	Number	
Designated Facility Name a	and Site Address Power o Hills 1	andfill			U.S. EPA ID) Number	
Facility's Phone:	3875 Potrero I					N	/A
	Vicinia de la companya della companya della companya de la companya de la companya della company		10. C	ontainers	11. Total	12. Unit	
9. Waste Shipping Nar	me and Description		No.	Туре	Quantity	Wt./Vol.	-
t, Non-Ha	zardous Soil		Ţ.	DT	18	CY	
2.							
3.							
						-	
4.							
13. Special Handling Instruct	ions and Additional Information			五33			
Approva	#PHLF-15-563		1	NP56	39		
Account	# for BB. phone # is BB31029						
			//	YR 4	3 13		
14. GENERATOR'S/OFFER marked and labeled/place	OR'S CERTIFICATION: I hereby declare that arded, and are in all respects in proper condit	the contents of this consignment are ful on for transport according to applicable	y and accurately nternational and	y described abov d national govern	e by the proper mental regulatio	shipping nam ns.	
Generator's/Offeror's Printed	1	Signatur		-			Month Day Yea
15. International Shipments	Import to U.S.	Export from U.S.	Port	of entry/exit:			
Transporter Signature (for ex	xports only):	Export non 0.0.		e leaving U.S.:			
16. Transporter Acknowledg							
Transporter 1 Printed/Typed	Name	SAINS Signatur	e				Month Day Ye
Transporter 2 Printed/Typed		Signatu	e				Month Day Yea
17. Discrepancy							
17a. Discrepancy Indication	Space Quantity	Туре	Residue		Partial	Rejection	Full Rejection
17b. Alternate Facility (or Ge	enerator)		Manifest Refere	SHOE MUITIDEL:	U.S. EPA	ID Number	
Facility's Phone:					I		
17c. Signature of Alternate I	Facility (or Generator)				-1-		Month Day Ye
18. Designated Facility Own	ner or Operator: Certification of receipt of mate	rials covered by the manifest except as	noted in Item 17	7a			
Printed/Typed Name	The state of the s	Signatu		81			Month Day Yo

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	1	nergency Respon	-5310		racking Numb	2830
	ailing Address in Apartment Properties 2 Herry Adams Street, Suite San Francisco, CA 94103-415	150		ess (if different t	han mailing addr	ress)	
Generator's Phone: 6. Transporter 1 Company I	lamec. PUNO TK	ANSPORCE			U.S. EPA ID	Number	
7. Transporter 2 Company I	Name				U.S. EPA ID	Number	
8. Designated Facility Name	and Site Address Potrero HIIIs Lan	gtill			U.S. EPA ID) Number	
	3675 Potreso Hill Swam, CA 9458					3970	
Facility's Phone:	5444, 54 F/50	2 101 100 1001	10.0	ontainers	44 7001	1 1	
9. Waste Shipping N	ame and Description		No.	Туре	11. Total Quantity	12. Unit Wt./Vol.	
Non-H	azardous Sori		1	DT	18	CY	
2.							
3.							
4.							
14. GENERATOR'S/OFFE	ROR'S CERTIFICATION: I hereby declare that the carded, and are in all respects in proper condition to	contents of this consignment are fully transport appropriate to applicable	y and accurately	/ described abov	e by the proper	shipping name	
Generator's/Offeror's Printe		Signatur		mational govern	mental regulation		Month Day Ye
15. International Shipments		Export from U.S.		of entry/exit:			
Transporter Signature (for 16. Transporter Acknowled	exports only): Igment of Receipt of Materials		Date	leaving U.S.:	1		
Transporter Printed/Type		Signatu		of E	Pu	-	Month Day Ye
Transporter 2 Printed/Type	d Name	Signatu	e (/			Month Day Ye
17. Discrepancy 17a. Discrepancy Indication	n Space Quantity	Туре	Residue		Partial F	Rejection	Full Rejection
17b. Alternate Facility (or 6	Generator)		Manifest Refere	nce Number:	U.S. EPA I	D Number	
Facility's Phone:							
17c. Signature of Alternate	Facility (or Generator)	1					Month Day Ye
18. Designated Facility Ov Printed/Typed Name	vner or Operator: Certification of receipt of materials	covered by the manifest except as		a			Month Day Ye
I mile w Type wante		olyllati					monar Day

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	115	nergency Respon	-3330		racking Number	P2029
5. Generator's Name and Maili	o Addressim Apartment Prope 2 Henry Adams Street, St San Francisco, CA 94103	site 450	rator's Site Addre	ess (if different t	han mailing addr	ress)	
Generator's Phone: 6. Transporter 1 Company Name	me MOZ Hreats	Danville			U.S. EPA ID	Number	
15 1	6 11 2 1 7	Jany fuel			U.S. EPA ID	Number	
7. Transporter 2 Company Na	ne.				1		
Designated Facility Name a Facility's Phone:	3675 Potrero H				U.S. EPA ID	Number	L
9. Waste Shipping Nan	ne and Description			ontainers	11. Total	12. Unit	
1.	io and Description		No.	Туре	Quantity	Wt./Vol.	
r	sardous Sotl		1	DT	18	СХ	
2.							
3.							
4.							
Account	#for ER phone#is BR31029			0	MO	27	
14. GENERATOR'S/OFFERO	DR'S CERTIFICATION: I hereby declare that the arded, and are in all respects in proper condition	ne contents of this consignment are ful n for transport according to applicable	ly and accurately international and	described above national govern	e by the proper mental regulation	shipping name,	and are classified, packaged,
Generator's/Offeror's Printed		Signatu					Month Day Year
15. International Shipments	Import to U.S.	Export from U.S.	Port	of entry/exit:			1 100
15, International Shipments Transporter Signature (for ex	ports only):	Export nonvoice		leaving U.S.:			
16. Transporter Acknowledge Transporter 1 Printed/Typed Transporter 2 Printed/Typed		Signatu	re	1 -			Month Day Year
Transporter 2 Printed/Typed	Name	Signatu	re				Month Day Year
188							
17. Discrepancy 17a. Discrepancy Indication	Space —						
17a. Discrepancy indication	Quantity	 Туре	Residue Manifest Referer	naa Numbari	Partial F	Rejection	Full Rejection
17b. Alternate Facility (or Ge	nerator)		Marinest Hererer	ice (vuilibe).	U.S. EPA	D Number	
Facility's Phone:					1		
17c. Signature of Alternate F	acility (or Generator)						Month Day Year
Facility's Phone: 17c, Signature of Alternate F		1.					
	er or Operator: Certification of receipt of materia	als covered by the manifest except as	noted in Item 17a	a			
Printed/Typed Name		Signatu					Month Day Yea

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	1.1	. Emergency Respo	-5336		7.75	1828		
211111111111111111111111111111111111111	Ing Address in Apartment Propertie 2 Henry Adams Street, Stitte Sen Prancisco, CA 94103, 4	450	Generator's Site Add	ress (if different th	an mailing addr	ess)			
Generator's Phone:		13-202-1441			U.S. EPA ID	Number			_
6. Transporter 1 Company Na	BAINS								
7. Transporter 2 Company Na				175	U.S. EPA ID	Number			
Designated Facility Name a	and Site Address Por Holls L.	mdfill			U.S. EPA ID	Number			
	3675 Patrero H	ills Lane							
	Susan, CA 945	85 707-432-4627			1 1	M/A			
Facility's Phone:			10.0	Containers	11. Total	12. Unit			
9. Waste Shipping Nar	me and Description		No.	Туре	Quantity	Wt./Vol.			
1. Non-Ha	zardous Soil		ī	EXT	18	CY			
2.									
3.									
3,									
4.									Ī
14. GENERATOR'S/OFFER	OR'S CERTIFICATION: I hereby declare that the larged, and are in all respects in proper condition	ne contents of this consignment a	re fully and accurate	ly described abov	e by the proper	shipping name, a	and are classified	l, package	ed
Generator's/Offeror's Printed			nature	d flational govern	mental regulation	113.		Day	,
1 2 2 6	ar Lit		11				10	26	1
15. International Shipments	Import to U.S.	Export from		t of entry/exit:					_
Transporter Signature (for e	xports only): ment of Receipt of Materials		Date	e leaving U.S.:			7		-
Transporter 1 Printed/Typed		Sig	nature ZZZ	1			Month	Day	
Transporter 2 Printed/Typed		Sig	gnature				Month	Day	
17. Discrepancy									-
17a. Discrepancy Indication	Space Quantity	Туре	Residue		Partial	Rejection	□ F	ull Rejecti	io
			Manifest Refer	ence Number:					
17b. Alternate Facility (or G	enerator)				U.S. EPA	ID Number			
Facility's Phone:	5-W-1-6						Month	Day	_
17c. Signature of Alternate	Facility (or Generator)						Motur	Day	L
		*							
18. Designated Facility Own Printed/Typed Name	ner or Operator: Certification of receipt of materi		pt as noted in Item 1 gnature	7a			Month	Day	-
- Innover I pour raino							1	1	i

2 ud Atternoon

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	2. Page 1 of 3. Er	mergency Respon	ise Phone	4. Waste	Tracking Nun	nber 2834
Generator's Phone:	alling Address in Apartment Properties 2 Henry Adens Street, State Sen Francisco, CA 94103-41;	450 5-509-1441		ess (if different	than mailing add	iress)	A4 - 6
6. Transporter 1 Company N	vame 4002 Hart	DONV.	lle		U.S. EPA II	Number .	
7. Transporter 2 Company Na	ame				U.S. EPA II) Number	
8. Designated Facility Name					U.S. EPA II) Number	
Facility's Phone:	3675 Potrero Hill Stitum, CA 9458				I	14/	A
9. Waste Shipping Nar	ama and Daggaration		10. Con	tainers	11. Total	-	
1.	hie and Description		No.	Туре	Quantity	12. Unit Wt./Vol.	
No. Ha	zardous Soil		1 *	DT	18	CY	
2.							
3.							
4.							
14. GENERATOR'S/OFFERO marked and labeled/placar Generator's/Offeror's Printed/T	OR'S CERTIFICATION: I hereby declare that the counted, and are in all respects in proper condition for to	intents of this consignment are fully a transport according to applicable inte	and accurately des	scribed above ional governme	by the proper shental regulations		and are classified, packaged, Month Day Year
45 Interdelicent Objection	1 m 5 m 2	14/	-				Month Day Year
15. International Shipments Transporter Signature (for expi	Import to U.S.	Export from U.S.	Port of er Date leav				
16. Transporter Acknowledgme	nent of Receipt of Materials		but tea.	ing o.c			
Transporter 1 Printed/Typed N	ALLSLICE	Signature	4	-	>		Month Day Year
Transporter 2 Printed/Typed N	ame	Signature					Month Day Year
17. Discrepancy							
17a. Discrepancy Indication Sp	pace Quantity	Туре	Residue		Partial Rej	ection	Full Rejection
17b. Alternate Facility (or Gene	erator)	Mar	nifest Reference N	Number:	U.S. EPA ID	Number	
Facility's Phone: 17c. Signature of Alternate Fac	cility for Generators						
170. Organica of Programs, 1 see	mry (or decretator)	1					Month Day Year
18. Designated Facility Owner of Printed/Typed Name	or Operator: Certification of receipt of materials cover	vered by the manifest except as noted Signature	d in Item 17a				Month Day Year
							1 1 1

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number		2. Page 1 of 3. Er	nergency Resp	onse Phone	4. Waste	Tracking Nun	2838		
5. Generator's Name and Ma Generator's Phone:	2 Henry Adams Street Sen Prencisco, CA 94	et, Suite 450			dress (if different	than mailing ad	dress)			
Transporter 1 Company No. Transporter 2 Company No.	pradley	TANK	S, Im	C		U.S. EPA I	D Number D Number	076	146	68
8. Designated Facility Name		fills Landfill rero Hills Lane				U.S. EPA I	D Number			
Facility's Phone:		CA 94585 707-4	32-4627			ì	M.	A		
9. Waste Shipping Nar	me and Description			10. Co	ontainers Type	11. Total Quantity	12. Unit Wt./Vol.			
I. Mon- Ha	uadan Soil			1	DT	18	CY			
2.								-		
3.		-								
4.								-		
marked and labeled/placal	R'S CERTIFICATION: I hereby declar ded, and are in all respects in proper	re that the contents of this condition for transport acc	consignment are fully a conding to applicable into	and accurately	described above national governm	by the proper s	hipping name, a	and are classifi	ied, packaç	ged,
	yped Name		Signature	16				Month		Year
 International Shipments Transporter Signature (for exp 			Export from U.S.		entry/exit:					
16. Transporter Acknowledgm: Transporter 1 Printed/Typed N		2	Signature	l				Month	Day	Year
Transporter 2 Printed/Typed N	ame		Signature	9				Month	Day	Year LZ
17. Discrepancy 17a. Discrepancy Indication Sp	pace Quantity	Туре		Residue		Partial Re	jection		Full Reject	ion
17b. Alternate Facility (or Gene	erator)		Ma	nifest Reference	e Number:	U.S. EPA ID	Number			-
Facility's Phone: 17c. Signature of Alternate Fac	cility (or Generator)		1					Month	Day	Year
18. Designated Facility Owner	or Operator: Certification of receipt of	materials covered by the r	manifest except as note	d in Item 17a						
Printed/Typed Name			Signature					Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number		2. Page 1 of	3. Emergency Respo	nse Phone	4. Waste	Tracking Nur	mber		
Generator's Phone:	2 Hanry Adams Street San Francisco, CA 941	, Suite 450		Generator's Site Add	ess (if different	than mailing add	fress)			
6. Transporter 1 Company Nan	te leu	CKIV	19			U.S. EPA II	Number -	016	879	99
7. Transporter 2 Company Nan			0			U.S. EPA II	Number			
8. Designated Facility Name an	Z OG III O I IDII					U.S. EPA II	Number			
Facility's Phone:	5675 Potrero Suisun, CA	94585 707-43.	2-4627			1	N	A		
9. Waste Shipping Name	e and Description			10. Co	ntainers Type	11. Total Quantity	12. Unit Wt./Vol.			
1. Won- Ham	ardous Sos)			Y	DT	18	CY			
2.										
3.										
4.				-				-		-
Approval	is and Additional Information # PHILE-15-063 For ER phone # Is BE31/2	19								
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty	FPHLE-15-063 FOR ER phone # Is BE 3102 P'S CERTIFICATION: I hereby declare that ed, and are in all respects in proper conditions.		consignment are rding to applicabl		escribed above	by the proper si				
14. GENERATOR'S/OFFEROR marked and labeled/placarde Generator's/Offeror's Panted/Ty	"S CERTIFICATION: I hereby declare that ed, and are in all respects in proper conditional ped Name		Signal	ure	escoped above ational governm	by the proper si ental regulations		Month		ged, Year
14. GENERATOR'S/OFFEROR marked and labeled/placard: Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for expor	"S CERTIFICATION: I hereby declare that ed, and are in all respects in proper conditional number of the second of			Port of	escobed above ational government of the state of the stat	by the proper si ental regulations		Month	Day	
14. GENERATOR'S/OFFEROR marked and labeled/placarde Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for export 16. Transporter Acknowledgmen Transporter 1 Printed/Typed Nar	"S CERTIFICATION: I hereby declare that ed, and are in all respects in proper condition ped Name Import to U.S. rts only): nt of Receipt of Materials me		Signal	Port of Date le	entry/exit:	by the proper si ental regulations		Month	Day	
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for export 16. Transporter Acknowledgment Transporter 1 Printed/Typed Nar	"S CERTIFICATION: I hereby declare that ed, and are in all respects in proper condition ped Name Import to U.S. rts only): nt of Receipt of Materials me	at the contents of this of this of transport acco	Signal Export from U.S	Port of Date le	entry/exit: aving U.S.:	by the proper sl ental regulations		Month	Day Day	Year
14. GENERATOR'S/OFFEROR marked and labeled/placarde Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for export 16. Transporter Acknowledgmen Transporter 1 Printed/Typed Nar	"S CERTIFICATION: I hereby declare that ed, and are in all respects in proper condition proper land land in the land land land land land land land land	at the contents of this of this of transport acco	Signal Export from U.S	Port of Date le	entry/exit: aving U.S.:	by the proper significant regulations	nipping name,	Month Month	Day Day 26	Year Year Year
14. GENERATOR'S/OFFEROR marked and labeled/placarde Generator's/Offeror's Printed/Ty. 15. International Shipments Transporter Signature (for export 16. Transporter Acknowledgment Transporter 1 Printed/Typed Narthransporter 2 Printed/Typed Narthransporter 2 Printed/Typed Narthransporter 2 Printed/Typed Narthransporter 2 Printed/Typed Narthransporter 3 Printed/Typed Narthransport	PYS CERTIFICATION: I hereby declare that ed, and are in all respects in proper condition ped Name Import to U.S. Ints only): Int of Receipt of Materials Imperiate Quantity	at the contents of this of ition for transport acco	Signal Export from U.S	Port of Date le	entry/exit:aving U.S.:	3.	nipping name,	Month Month	Day 26 Day	Year Year Year
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14. GENERATOR'S/OFFEROR marked and labeled/placards Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for export 16. Transporter Acknowledgment Transporter 1 Printed/Typed Nar Transporter 2 Printed/Typed Nar 17. Discrepancy 17a. Discrepancy 17b. Alternate Facility (or General Facility's Phone:	"S CERTIFICATION: I hereby declare that ed, and are in all respects in proper condition proper Name Import to U.S. rist only): Int of Receipt of Materials Imperiate Quantity The Quantity	at the contents of this of ition for transport acco	Signal Export from U.S	Port of Date le	entry/exit:aving U.S.:		nipping name,	Month Month	Day Day Day Pull Reject	Year Year Year

NON-HAZARDO WASTE MANIFE	ST PACE		2. Page 1 of	3. Emergency Resp	onse Phone	4. Waste	Tracking No	umber 2836		
Generator's Phone:	d Mailing Address in Apartment P 2 Henry Adams Stre San Francisco, CA 9	et, Suite 450	4 41.	Generator's Site Add	iress (if different	than mailing add	dress)			
6. Transporter 1 Compa	prName PUNC 1	AWSPO	ORX			U.S. EPA II	O Number			
7. Transporter 2 Compa	ny Name	1	1			U.S. EPA II) Number		_	
Designated Facility N	ame and Cita Address	Fills Landfill					, 110,1100			
o. Designated Facility is		rero Hills Lane				U.S. EPA II	Number			
		CA 94585 707-4	32-4627			,	107	VA.		
Facility's Phone:				10.0	ontainers			A.		
	g Name and Description			No.	Type	11. Total Quantity	12. Unit Wt./Vol.			
1. Next-	Hasardous Soil			.1	DT	10	CY			
2.										
3.										
0.										
4.										
13. Special Handling Inst	ructions and Additional Information									
Appro	nal # PHLP-15-663					1.				
Acce	ns # for ER phone # is ER3	1029				#1.	22	23		
14 GENERATOR'S/OFF	EPOP'S CERTIFICATION. I horsely deale	to that the section of the		/						
marked and labeled/g Generator's/Offeror's/Prir	EFOR'S CERTIFICATION: I hereby declar lacarded, and are in all respects in proper	condition for transport acc	cording to applicat	ole international and r	described above national governm	by the proper si ental regulations	nipping name s.	, and are classifi	ed, packa	iged,
114	- Henlen	Sent	Signa	iture				Month	Day	Year
15. International Shipmer	Import to U.S.		Export from 0.5	S. Port of	entry/exit:					1
15. International Shipmer Transporter Signature (fo 16. Transporter Acknowle Transporter 1 Printed/Typ Transporter 2 Printed/Typ	r exports only): dgment of Receipt of Materials		-	Date le	aving U.S.:	7				
Transporter 1 Printed/Typ	ed Name E. DUX	10	Signa	ture /	1-11			Month	Day	Year
Transporter 2 Printed/Typ	ed Name		Signa	ture /	4	uz		Month	20	1/5
				//	/			Month	Day	Year
17. Discrepancy 17a. Discrepancy Indicati	on Space									
	L Quantity	Туре		Residue		Partial Re	ection		Full Rejec	tion
17b. Alternate Facility (or	Generator)			Manifest Reference	e Number:	110 504 10	No.			
						U.S. EPA ID	Number			
Facility's Phone: 17c. Signature of Alternat	e Facility (or Generator)									-
The dignature of Milestat	s racinty (or denerator)		1					Month	Day	Year
	vner or Operator: Certification of receipt of	materials covered by the								*
Printed/Typed Name			Signa	ture				Month	Day	Year

1	NON-HAZARDOUS WASTE MANIFEST	Generator ID/Number		of 3. Emergency Respo	onse Phone	4. Waste	Tracking Num	bengas	
	Generator's Phone:	ng Addresslin: Apartment Pr 2 Henry Adams Stree San Francisco, CA 98	et, Suite 450	Generator's Site Add	ress (if different	than mailing add	dress)		
-	5. Transporter 1 Company Nam	ne				U.S. EPA II	D Number		
-	7. Transporter 2 Company Nam	SSBr	nN'S			1			
		ne				U.S. EPA II	O Number		
8	B. Designated Facility Name an	The state of the s	100000000000000000000000000000000000000			U.S. EPA II	O Number		
	Facility's Phone:		ro Hills Lane . 94585-707-432-4627			1	N/	A.	
1				10. Co	ontainers	11 Total	20 1158		
L	9. Waste Shipping Name	e and Description		No.	Туре	11. Total Quantity	12. Unit Wt./Vol.		
	t. Non-Hsta	ardous Soil		Ť	DIT	18	CY		
	2.								
	3.								
	4.								
	4. GENERATOR'S/OFFEROR marked and labeled/placarde enerator's/Offeror's Printed/Typ	/ /	hat the contents of this consignmen dition for transport according to app	at are fully and accurately of plicable international and no signature.	described above national governm	by the proper si ental regulation	hipping name, a s.	and are classified Month	Day Year
1	5. International Shipments	Import to U.S.	Export from	mile O Port of	- anteriority				1
	ransporter Signature (for expor	rts only):	L. Exponente		entry/exit: eaving U.S.;				
	 Transporter Acknowledgmen ransporter 1 Printed/Typed Nar 		+4	Signature				Marth	Day Wass
T	SARBIT	The same of the sa	115	Signature	-			Month 101	Day Year
	ransporter 2 Printed/Typed Nar			Signature	-			Month	Day Year
-	 Discrepancy Discrepancy Indication Spa 	ice 🗆							
		Quantity	Ш Туре	Residue Manifest Reference	e Number:	Partial Re	ejection	∟ Fu	II Rejection
1	7b. Alternate Facility (or General	ator)				U.S. EPA ID	Number		
F	acility's Phone:								
1	7c. Signature of Alternate Facili	ity (or Generator)						Month	Day Year
F. 1	1								
		Operator: Certification of receipt of ma	terials covered by the manifest exc	ept as noted in Item 17a					
Pi	inted/Typed Name		S	Signature				Month	Day Year

WASTE MANIFEST	Generator ID Number		3. Emergency Response	e Phone	4. Waste	Tracking Nur	mber		
Generator's Phone:	iling Addressim Apartment Prope 2 Hanry Adams Street, St San Hancisco, CA 94103	title 450	Generator's Site Address	s (if different t	than mailing add	dress)			
6. Transporter 1 Company Nar	BAINS				U.S. EPA II) Number			
7. Transporter 2 Company Nar					U.S. EPA II	Number			-
Designated Facility Name as Facility's Phone:	3675 Postero H				U.S. EPA II	Number N	A		
	10 M. J. C. M. M.		10. Conta	lenza		1			
9. Waste Shipping Nam	e and Description		No.	Type	11. Total Quantity	12. Unit Wt./Vol.			
1. Hon-Has	tandous Soil		12.23	DT	18	CX			
Non-Hass								+	
3.									
4.		-							
	ns and Additional Information #PHD F-13-063 #CON EST, proof # 13 BE 71029								
14. GENERATOR'S/OFFEROR marked and labeled/placard	# PFI F-13-063 # for ER power # 12 BB. 1009 R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition for	for transport according to applicable	e international and natio	cribed above to	by the proper sh	nipping name,			
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty	# PFI F-13-063 # for ER power # 12 BB. 1009 R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition for	contents of this consignment are fi for transport according to applicable Signati	e international and natio	cribed above to	by the proper si ental regulations	nipping name,	and are classifi	ed, packa Day	aged, Year
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments	# PPI K-13-063 FIX ER DEXTE # 13 BE 31009 R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition for yped Name Import to U.S.	for transport according to applicable	e international and natio	onal governme	by the proper sh antal regulations	nipping name,			
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for export	R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition for yped Name Import to U.S. orts only):	Signati	e international and natio	ry/exit:	by the proper si ental regulations	nipping name,			
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments	# PPI X-13-063 A LEX DESCRIPTION: I hereby declare that the ded, and are in all respects in proper condition followed Name Import to U.S. orts only): int of Receipt of Materials	Signate Export from U.S.	Port of entr	ry/exit:	by the proper sh antal regulations	nipping name,	Month	Day	Year
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for export 16. Transporter Acknowledgment)	# PPILX-13-063 A LEX DESCRIPTION: I hereby declare that the ded, and are in all respects in proper condition for the syped Name Import to U.S. Orts only): Int of Receipt of Materials arme	Signati	Port of entr	rry/exit:ng U.S.:	by the proper si ental regulations	nipping name,	Month	Day	Year
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for expo- 16. Transporter Acknowledgment Transporter 1 Printed/Typed Na Transporter 2 Printed/Typed Na	# PPEL X-13-063 * CCX EST, DEXIVE # 13 BE 31009 R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition for yyped Name Import to U.S. orts only): ent of Receipt of Materials are	Signate Export from U.S.	Port of entr Date leavin	rry/exit:ng U.S.:	by the proper shantal regulations	nipping name,	Month	Day	Year
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for exported) 16. Transporter Acknowledgment Transporter 1 Printed/Typed National Shipments Transporter 2 Printed/Typed National Shipments Transporter 1 Printed/Typed National Shipments	R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition followed Name Import to U.S. orts only): ent of Receipt of Materials arme	Signate Export from U.S. Signate	Port of entr Date leavin	rry/exit:ng U.S.:	by the proper si	nipping name,	Month Month	Day Day	Year Year 15
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for expo- 16. Transporter Acknowledgment Transporter 1 Printed/Typed Na Transporter 2 Printed/Typed Na	R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition followed Name Import to U.S. orts only): ent of Receipt of Materials arme	Signate Export from U.S. Signate	Port of entr Date leavin	ry/exit:	by the proper stental regulations		Month / O Month	Day Day	Year Year Year Year
14. GENERATOR'S/OFFEROR marked and labeled/placard Generator's/Offeror's Printed/Ty 15. International Shipments Transporter Signature (for exported) 16. Transporter Acknowledgment Transporter 1 Printed/Typed National Shipments Transporter 2 Printed/Typed National Shipments Transporter 1 Printed/Typed National Shipments	R'S CERTIFICATION: I hereby declare that the ded, and are in all respects in proper condition for yped Name Import to U.S. onts only): Interest of Receipt of Materials ame Ame Quantity	Signatu Signatu Signatu	Port of entr Date leavin	ry/exit:	antal regulations	ection	Month / O Month	Day Day Day	Year Year Year Year
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WASTE MANIFEST	Generator ID Number		1 of 3. Emerge	20000	2-1-1-1		racking Num	- CONTACT	
Generator's Name and Mail	ing Address in Apartment Prop 2 Harry Adams Street, S San Francisco, CA, 9410	Sante 450	Generator		ess (if different th	nan mailing addr	ess)		
enerator's Phone:						U.S. EPA ID	Number		
Transporter 1 Company Na	Tanks Inc					1	11011100		
. Transporter 2 Company Na						U.S. EPA ID	Number		
. Designated Facility Name a	and Site Address Parero Bill	IS CADADO				U.S. EPA ID	Number		
. Designated Facility Name a		o Hills Lane							
	Suran, CA	94585 707-432-462	7			1	197	A.	
acility's Phone:				10.0	ontainers	44 7000	10 11=3		
9. Waste Shipping Nar	me and Description			No.	Type	11. Total Quantity	12. Unit. Wt./Vol.		
1. Non-Ha	zardons Soil				BT	18	CY		
2.									
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					11				
4.									
Approna	ions and Additional Information	029							
14. GENERATOR'S/OFFER marked and labeled/place	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper co	that the contents of this consider	nment are fully and o applicable intern	d accurately	y described abov d national govern	e by the proper mental regulation	shipping name		
14. GENERATOR'S/OFFER marked and labeled/place	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper co	that the contents of this consider	nment are fully an o applicable interr Signature	d accurately	y described abov	e by the proper mental regulation	shipping name	e, and are clas	
14. GENERATOR'S/OFFER marked and labeled/place Generator's/Offeror's Printed	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper co	that the contents of this consign endition for transport according to	o applicable interr Signature	national and	national govern	e by the proper mental regulation	shipping name		
14. GENERATOR'S/OFFER marked and labeled/plac Generator's Offeror's Printed 15. International Shipments Transporter Signature (for e)	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper confut to U.S. Import to U.S. xports only):	that the contents of this consign endition for transport according to	o applicable interr	Port	y described aboved national governing of entry/exit:	e by the proper mental regulation	shipping name		
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e) 16. Transporter Acknowledge	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper configuration. Import to U.S. exports only): ment of Receipt of Materials	that the contents of this consign endition for transport according to	o applicable interr Signature It from U.S.	Port	of entry/exit:	e by the proper mental regulation	shipping name	Mor	th Day
14. GENERATOR'S/OFFER marked and labeled/place Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for example of the control o	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper configuration. Import to U.S. exports only): ment of Receipt of Materials	that the contents of this consign endition for transport according to	o applicable interr Signature	Port	of entry/exit:	e by the proper mental regulation	shipping name		th Day
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14. GENERATOR'S/OFFER marked and labeled/plac Generator's Offeror's Printed 15. International Shipments Transporter Signature (for e) 16. Transporter 1 Printed/Typed Transporter 2 Printed/Typed 17. Discrepancy	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper confurty of Name Import to U.S. exports only): ment of Receipt of Materials Name	that the contents of this consign endition for transport according to	o applicable interrest Signature Interrest U.S.	Port	of entry/exit:	e by the proper mental regulation	shipping name	Mor Mor	th Day
14. GENERATOR'S/OFFER marked and labeled/plac Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e) 16. Transporter 1 Printed/Typed Transporter 2 Printed/Typed 17. Discrepancy	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper confurty of Name Import to U.S. exports only): ment of Receipt of Materials Name	that the contents of this consign endition for transport according to	o applicable interr Signature Int from U.S. Signature Signature	Port Date	of entry/exit:leaving U.S.:	mental regulation	shipping name	Mor Mor	th Day
14. GENERATOR'S/OFFER marked and labeled/place Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for example) 16. Transporter Acknowledg Transporter 1 Printed/Typed 17. Discrepancy 17. Discrepancy Indication	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper control of the con	that the contents of this consignation for transport according to	o applicable interr Signature Int from U.S. Signature Signature	Port Date	of entry/exit:	mental regulation	Rejection	Mor Mor	th Day
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14. GENERATOR'S/OFFER marked and labeled/place Generator's Offeror's Printed 15. International Shipments Transporter Signature (for e) 16. Transporter Acknowledg Transporter 1 Printed/Typed 17. Discrepancy 17a. Discrepancy Indication 17b. Alternate Facility (or General Facility's Phone:	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper control of the con	that the contents of this consignantial that the contents of this consignantial that the contents of this consignation for transport according to	o applicable interr Signature Int from U.S. Signature Signature	Port Date	of entry/exit:leaving U.S.:	Partial F	Rejection	Mor Mor	th Day
14. GENERATOR'S/OFFER marked and labeled/place Generator's Offeror's Printed 15. International Shipments Transporter Signature (for e) 16. Transporter Acknowledg Transporter 1 Printed/Typed 17. Discrepancy 17a. Discrepancy Indication 17b. Alternate Facility (or Generative Phone:	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper control of the con	that the contents of this consignantial that the contents of this consignantial that the contents of this consignation for transport according to	o applicable interr Signature Int from U.S. Signature Signature	Port Date	of entry/exit:leaving U.S.:	Partial F	Rejection	Mor Mor	th Day
14. GENERATOR'S/OFFER marked and labeled/place Generator's/Offeror's Printed 15. International Shipments Transporter Signature (for e) 16. Transporter Acknowledge Transporter 1 Printed/Typed 17. Discrepancy 17a. Discrepancy Indication 17b. Alternate Facility (or Generative Signature of Alternate Facility's Phone: 17c. Signature of Alternate Facility (or Generative Signature of Alternate Facility Signature Of Alternate Signature Of A	OR'S CERTIFICATION: I hereby declare arded, and are in all respects in proper control of the con	that the contents of this consignation for transport according to Export	o applicable interrest Signature Internet U.S. Signature Signature Man	Port Date	of entry/exit: leaving U.S.:	Partial F	Rejection	Mor Mor	th Day th Day The Day The Day The Day The Day

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 o	of 3. Emergency Respons	e Phone	4. Waste T	Tracking Numbe	r 2822
	2 Henry Adams Street, Sur San Francisco, CA 94103	te 450	Generator's Site Addres	ss (if different t	han mailing addr	ress)	
Generator's Phone: 6. Transporter 1 Company Nar	ley Tonks.	Inc			U.S. EPA ID	Number 2000 2	24168
7. Transporter 2 Company Nar	me Tartrara Rille I	- and			U,S. EPA ID) Number	
8. Designated Facility Name at	nd Site Address	Code (Standard			U.S. EPA ID	Number 14/A	
Facility's Phone:			10. Con	ntainers	11. Total	12. Unit	
9. Waste Shipping Nam	ne and Description		No.	Туре	Quantity	Wt./Vol.	
1. Non- Har	tardous Soil		7	DT	18	CA	
2.							
3.							
4.							
14. GENERATOR S/OFFERO marked and labeled/placar Generator's Offeror's Printed/	OR'S CERTIFICATION: I hereby declare that traded, and are in all respects in proper condition	on for transport according to ap	nt are fully and accurately di plicable international and na Signature	escribed above ational government	e by the proper s mental regulation	shipping name, a	and are classified, packaged, Month Day Year
Man 1	for lat		19				10 19 Km
15. International Shipments Transporter Signature (for exp		Export fro		entry/exit: aving U.S.:			
16. Transporter Acknowledgm Transporter 1 Printed/Typed N Transporter 2 Printed/Typed N	Name H. Gomez		Signature	19			Month Day Year
Transporter 2 Printed/Typed N	vame	1	Signature				Month Day Year
17. Discrepancy							
17a. Discrepancy Indication S	Space Quantity	Туре	Residue Manifest Reference	e Number:	Partial R	Rejection	Full Rejection
17b. Alternate Facility (or Gen	nerator)				U.S. EPA II	D Number	+
Facility's Phone:	STANCE AND ACCOUNTS						
Facility's Phone: 17c. Signature of Alternate Fa	icility (or Generator)					-	Month Day Year
	r or Operator; Certification of receipt of materi	ials covered by the manifest ex	cept as noted in Item 17a				
Printed/Typed Name			Signature				Month Day Year

1	NON-HAZARDOUS WASTE MANIFEST 1. Generator ID Number	2. Page 1 of 3. En	nergency Respon	nse Phone	4. Waste 1	racking Numb	er
	5. Generator's Name and Mailing Address IIII Apartment Pro 2 Henry Adams Street, 5an Francisco, CA 9511 Generator's Phone:	Suite 450	rator's Site Addre	ess (if different t	han mailing add	ress)	
	6. Transporter Company Name	uckino	1		U.S. EPA ID	Number 0	0/68/99
	7. Transporter 2 Company Name	1 - 400	0		U.S. EPA ID	Number	
	8. Designated Facility Name and Site Address	200100311			U.S. EPA ID	Number	1
	Waste Shipping Name and Description			ntainers	11. Total Quantity	12. Unit Wt./Vol.	
GENERATOR -	1. Non-Harardons Soil	Ť	No.	Type	18	GY	
- GENE	2.						
	3.						
	4.						
	Account # for ER phone # 12 B.P. 3 102 14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that	at the contents of this consignment are fully	and accurately of	described above	by the proper s	hipping name, a	and are classified, packaged,
*	marked and labeled/placarded, and are in all respects in proper condi Generator's/Offeror's Printed/Typed Name	Signature	-	ational governm	nental regulation	S.	Month Day Year
INT'L	15. International Shipments Import to U.S. Transporter Signature (for exports only):	Export from U.S.		entry/exit:			
TRANSPORTER	16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name	Signature Signature		wi	3		Month Day Year Month Day Year Year
TH	17. Discrepancy						
	17a. Discrepancy Indication Space Quantity	Туре	Residue	a Number	Partial R	ejection	Full Rejection
FACILITY -	17b. Alternate Facility (or Generator) Facility's Phone:	N	miliosi nelelenc	e Number.	U.S. EPA ID	Number	
DESIGNATED	17c. Signature of Alternate Facility (or Generator)				1	550	Month Day Year
0	18. Designated Facility Owner or Operator: Certification of receipt of mate	erials covered by the manifest except as no	ited in Item 17a				
V	Printed/Typed Name	Signature					Month Day Year

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	2. Page 1 of 3. E			1000000	racking Numbe	£825
5. Generator's Name and Mail	ing Address in Apartment Proj 2 Henry Adams Street, San Francisco, CA 9410	Suna asu	erator's Site Addi	ress (it different t	han malling add	ress)	
Generator's Phone:					U.S. EPA ID	Number	
6. Transporter 1 Company Na	SILL T	RUCKING			THE		3657
7. Transporter 2 Company Na		140Cle COC			U.S. EPA ID		
8. Designated Facility Name a	and Site Address Potrero HIIIS				U.S. EPA IC	Number N/A	
Facility's Phone:	Susun, CA 9	4585 707-432-4627			1		
	wa and Danadation		10. C	containers	11. Total	12. Unit	
9. Waste Shipping Nar	me and Description		No.	Туре	Quantity	Wt./Vol.	
I. Mon-Ha	zardous Soil	*	Ţ	DT	18	CI	
2.							
3.							
4.							
	ions and Additional Information						
	# for EP phone # is BP3102			-/-			
 GENERATOR'S/OFFERO marked and labeled/place 	OR'S CERTIFICATION: I hereby declare the arded, and are in all respects in proper cond	at the contents of this consignment are for ition for transport according to applicable	illy and accurately international and	y described abov d national govern	e by the proper : mental regulation	shipping name, a ns.	and are classified, packaged,
Generator's/Offeror's Printed	Typed Name	Signati	ire /	_			Month Day Ye
15. International Shipments	Z	П	4				12 20 1
Transporter Signature (for ex	Import to U.S.	Export from U.S.		of entry/exit: leaving U.S.:			
16. Transporter Acknowledge	ment of Receipt of Materials			1			-
Transporter 1 Printed/Typed	Name VERONIC	Signati	ire	1	-	0	Month Day Ye
Transporter 2 Printed/Typed	Name	Signat	ıre				Month Day Ye
17. Discrepancy 17a. Discrepancy Indication	Space Quantity	Туре	Residue	1	Partial F	Rejection	Full Rejection
17b. Alternate Facility (or Ge	enerator)		Manifest Refere	ence Number:	U.S. EPA	D Number	
Facility's Phone:					1		
17c. Signature of Alternate F	Facility (or Generator)						Month Day Yo
The state of the s	er or Operator: Certification of receipt of ma			'a			Month Day Y
Printed/Typed Name		Signat	uie				

A	NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	2. Page 1 of	3. Emergency Res	sponse Phone	4. Waste 1	racking Numb	per_824		
		ing Addréss in Apartment Prop 2 Henry Adams Street, Sen Francisco, CA 9410	Suite 450		ddtess (if different, Dublin, CA	han mailing add	ress)			
	Generator's Phone: 6. Transporter 1 Company Nar					U.S. EPA ID	Number .			
	7. Transporter 2 Company Nar	BAINS				U.S. EPA ID	Number			
		Tayron Hil	Hs Landfill			1				
	Designated Facility Name as	nd Site Address	ro Hills Lane			U.S. EPA ID	Number			
	Facility's Phone:	Sussas, CA	1.94585 707-432-4627			Ī	N/j	£.		
	9. Waste Shipping Nam	ne and Description			. Containers	11. Total	12. Unit			
	1	E ASSOCIATION		No.	71-5	Quantity	Wt./Vol.			
GENERATOR	Non-Haz	tardous Sot)		1	DT	18	CA.			
- GEN	2.									
	3.									
	4.									
	4.									
	14. GENERATOR'S/OFFERO marked and labeled/placar Generator's/Offeror's Printed/T	IR'S CERTIFICATION: I hereby declare rded, and are in all respects in proper co	ondition for transport according to appl	are fully and accurational a	ely described above nd national governr	by the proper s	hipping name,	Month	Day	Year
*	15. International Shipments	for held		100				10-	4	1
INT'L	Transporter Signature (for exp	Import to U.S.	Export from		rt of entry/exit: te leaving U.S.:					
TER	16. Transporter Acknowledgme Transporter 1 Printed/Typed N		c	ignature	1			Month	Devi	Vene
SPOR	HARDE	EP SINGH	. 1	H8	24 h			Month	Day	Year
TRANSPORTER	Transporter 2 Printed/Typed N	lame	S	ignature				Month	Day	Year
1	17. Discrepancy 17a. Discrepancy Indication Sp	pace —								
		Quantity	Туре	☐ Residu		Partial R	ejection	LJF	Full Rejec	tion
. YTI	17b. Alternate Facility (or Gene	erator)		Manifest Here	rence Number:	U.S. EPA ID) Number			
FACIL	Facility's Phone:					1				
DESIGNATED FACILITY	17c. Signature of Alternate Fac	cility (or Generator)						Month	Day	Year
- DESIG										
	18. Designated Facility Owner	or Operator: Certification of receipt of m	naterials covered by the manifest exce	ept as noted in Item 1	7a					
1	Printed/Typed Name			ignature				Month	Day	Year

1	NON-HAZARDOUS 1. Generator ID Number 2. Page 1 o WASTE MANIFEST	of 3. Emergency Respon	se Phone	4. Waste	Fracking Number	10821	
	5. Generator's Name and Mailing Address in: A partment Properties LUC 2 Honry Adams Street, Suite 450 5an Francisco, CA 94103-415-509-1441 Generator's Phone:	Generator's Site Addre	ess (if different t	han mailing add	ress)		
	6. Transporter 1 Company Name			U.S. EPA ID	000 %	0396	4
	Transporter 2 Company Name B. Designated Facility Name and Site Address			U.S. EPA ID			
	3675 Potrero Hills Lane Suisum, GA 94585 767-432-4627 Facility's Phone:			1	N/A		
	Waste Shipping Name and Description	10. Cor	ntainers Type	11. Total Quantity	12. Unit Wt./Vol.		
GENERATOR -	blon-Hatardous Soit	1	ETT	18	CY	4 -	
- GENE	2.						
	3.						
	4.						
	GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment marked and labeled/placarded, and are in all respects in proper condition for transport according to appl Generator's/Offeror's Printed/Typed Name S	are fully and accurately dilicable international and na	lescribed above ational governm	by the proper s ental regulation	hipping name, an	nd are classified, pac	
*	15. International Shipments	Me				10 16	1
INT	Transporter Signature (for exports only):		entry/exit: aving U.S.:				
TRANSPORTER	* Jante Lasmin 16	Signature	1	Buch	- X	Month Da	y Year
TRAN		ignature				Month Da	y Year
1	17a. Discrepancy Indication Space Quantity Type	Residue		Partial Re	ejection	Full Re	ejection
FACILITY -	17b. Alternate Facility (or Generator) Facility's Phone:	Manifest Reference	e Number:	U.S. EPA ID	Number		
DESIGNATED FACILITY	17c. Signature of Alternate Facility (or Generator)					Month Day	y Year
- DE	18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest exce	ept as noted in Item 17a					
V	DANGE OF WAR	ignature				Month Day	y Year

1	NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 o	888	Response Phone			ber 7820		
	5. Generator's Name and Maili Generator's Phone:	ing Address in: Apartment Propert 2 Henry Adams Street, Su San Francisco, CA 94103	ita 450	Generator's Sit	e Address (if diffe	rent than mailing add	dress)			
	Transporter 1 Company Nar	ne Miles TEVYEL	U~			U.S. EPA II	D Number			
	7. Transporter 2 Company Nar					U.S. EPA II	D Number			
	Designated Facility Name are	nd Site Address Potrero Hills:				U.S. EPA II	D Number			
	Facility's Phone:		1585 707-432-4627			1	14/2			
	9. Waste Shipping Nam	e and Description			10. Containers	11. Total	12. Unit			
	1,	o uno bosonphon		- 1	No. Typ	e Quantity	Wt./Vol.			
		ardons Soil)	DT	18	CY			
1	2.									
	3.									
	4.									
	4.									
	marked and labeled/placard	R'S CERTIFICATION: I hereby declare that of ded, and are in all respects in proper condition	in for transport according to appli	icable internationa	rately described a	bove by the proper s	shipping name, a	and are classifi	ed, packa	aged,
,	Generator's/Offeror's Printed/T	yped Name	Si	gnature				Month	Day	Year
	15. International Shipments Transporter Signature (for expo		Export from		ort of entry/exit: Date leaving U.S.					
	 Transporter Acknowledgme Transporter 1 Printed/Typed Na 	and the second second	0		2 35					
יויייייייייייייייייייייייייייייייייייי	Transporter 2 Printed/Typed Na	MET PRE		gnature	le	-		Month 12	Day	Year
	Transporter 2 T Timed Typed No	anie	51	gnature				Month	Day	Year
-	17. Discrepancy									
	17a. Discrepancy Indication Sp	ace Quantity	Туре	Resid		Partial R	ejection		Full Rejec	ction
Ì	17b. Alternate Facility (or Gene	rator)		Manifest Re	ference Number:	U.S. EPA ID) Number			
	Facility's Phone:					1				
1	17c. Signature of Alternate Fac	ility (or Generator)	1					Month	Day	Year
	18. Designated Facility Owner of	or Operator: Certification of receipt of materia	als covered by the manifest excep	ot as noted in Item	17a					
	Printed/Typed Name		Sig	gnature				Month	Day	Year

A	NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number		100	. Emergency Respon	-3730		Tracking Numb	er 2819	
		g Addresslin Apartment Pro 2 Henry Arlams Street San Francisco, CA 943	Suite 490		enerator's Site Addre	ess (if different t	han mailing add	ress)		
	Generator's Phone: 6. Transporter 1 Company Nam	e A CTM	1 11	^			U.S. EPA ID	Number		
		1 STA	- 110	7						
	7. Transporter 2 Company Nam	e		1			U.S. EPA ID	Number		
	8. Designated Facility Name an						U.S. EPA ID			
		Suistra, CA	o Hills Lause 04585 707-432	4627				N/s	1	
	Facility's Phone:				40.0			1		
	9. Waste Shipping Name	and Description			No.	ntainers Type	11. Total Quantity	12. Unit Wt./Vol.		
GENERATOR -	1. Non-Hau	ardous Seni			1	er:	18	G¥		
- GENE	2.									
	3.									
k	4.				_	-		-		
	13. Special Handling Instruction	as and Additional Information								
	Approval	# PHILE-15-560								
	Account h	for ER phone # is BE310)	19							
	14. GENERATOR'S/OFFEROR	R'S CERTIFICATION: I hereby declare th	at the contents of this c	onsignment are	fully and accurately	described above	e by the proper s	shipping name,	and are classified, pack	aged.
	marked and labeled/placard Generator's/Offeror's Printed/Ty	led, and are in all respects in proper cond	dition for transport accor	rding to applical	ole international and r	national governi	mental regulation	ns.	Month Day	Year
*	Generator Someror S Printed 1	yped Ivalie		Sign	aute /				Worth bay	1 A
INT.L	15. International Shipments	Import to U.S.		Export from U.	S. Port of	f entry/exit:				
_	Transporter Signature (for expo 16. Transporter Acknowledgme				Date le	eaving U.S.:				
TRANSPORTER	Transporter 1 Printed/Typed Na			Sign	ature 4	AI	1		Month Day	Year
SPC	Transport of District Transport	rar ITII		Sign	1	11			Month Day	Year
TRAP	Transporter 2 Printed/Typed Na	arre		Sign	ature				Day	1 eai
A	17, Discrepancy									1
	17a. Discrepancy Indication Sp	ace Quantity	Туре		Residue		Partial P	Rejection	Full Rej	ection
1					Manifest Reference	ne Number				
TY	17b. Alternate Facility (or Gene	erator)			Marinest Heistern	oo rumoor.	U.S. EPA II	D Number		
ACIL	Facility de Disease						T			
ED F	Facility's Phone: 17c. Signature of Alternate Fac	sility (or Generator)							Month Day	Year
GNAT										
DESIGNATED FACILITY										
1					-					
	18. Designated Facility Owner Printed/Typed Name	or Operator: Certification of receipt of ma	terials covered by the n		as noted in Item 17a ature				Month Day	Year
A	Timileuri ypeu Maine			Jagn	a.u.e				l l	lear

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NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 3. Er	nergency Respons	se Phone	4. Waste	Tracking Number	er 2818
	ing Address in Apartment Propert 2 Henry Adams Street, Su San Francisco, CA 94103	ite 450	erator's Site Addres	ss (if different t	han mailing add	ress)	
Generator's Phone: 6. Transporter 1 Company Na					U.S. EPA ID) Number	
7. Transporter 2 Company Na					U.S. EPA II) Number	
8. Designated Facility Name a	3675 Potrero l				U.S. EPA ID	Number Number	
Facility's Phone:	and Browning		10. Con	ntainers	11. Total	12. Unit	
Waste Shipping Nan 1.	ne and Description		No.	Туре	Quantity	Wt./Vol.	
	tardous Soil		1.	ET	18	CY	
2.							
3.							
4.							
13 Special Handling Instruction	ons and Additional Information						
14. GENERATOR'S/OFFERC marked and Jabeled/placa Generator's/Offeror's Printed/	PR'S CERTIFICATION: I hereby declare that rded, and are in all respects in proper conditi	the contents of this consignment are full	nternational and na	escribed above ational governm	by the proper senental regulation	shipping name, a ns.	nd are classified, packaged, Month Day Yea
15. International Shipments Transporter Signature (for exp	Import to U.S.	Export from U.S.		entry/exit: aving U.S.:			
16. Transporter Acknowledgm	nent of Receipt of Materials		/2/	aving 0.0.			
Transporter 1 Printed/Typed N	Hermonder	Signature	part -				Month Day Yes
Transporter 2 Printed/Typed N	Name	Signature					Month Day Yea
17. Discrepancy 17a. Discrepancy Indication S	Space Quantity	Туре	Residue	N. d	Partial R	ejection	Full Rejection
17b. Alternate Facility (or Ger	nerator)		Manifest Reference	e Number:	U.S. EPA II	O Number	
Facility's Phone:	W (0)						
17c. Signature of Alternate Fa	cuity (or Generator)						Month Day Ye
18 Designated Facility Owner	r or Operator: Certification of receipt of mater	ials covered by the menifest avecast as a	oted in Item 172				
Printed/Typed Name	, or operator, continuation of receipt of mater	Signature					Month Day Ye
		1					

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	2. Pag	e 1 of 3. Emergen		se Phone 75-5336	4. Waste 1	racking Nun BIII	2801
5. Generator's Name and Mail	Dublin Apartin 2 Henry Adams	ent Properties LLC s Street, Suite 450 CA 94103-415-509		7	ess (if different ti 1844 Dubli Paublin, CA		ress)	
Generator's Phone: 6. Transporter 1 Company Nai	y lanks I	The					1000	022/1560
7. Transporter 2 Company Na	má					U.S. EPA ID	Number	
Designated Facility Name a Facility's Phone:	3675	ero Hills Landrill 5 Potrero Hills Lane un, CA 94585-707-42	9-9600			U.S. EPA ID		N/A
9. Waste Shipping Nam	ne and Description			10. Cor	ntainers	11. Total	12. Unit	
1.	is and bookinghor.			No.	Туре	Quantity	Wt./Vol.	
	sandous Soil			Ī	DT	18	CY	
2.								
3.								
4.								
14. GENERATOR'S/OFFERO marked and labeled/placal Generator's/Offeror's Printed/	IR'S CERTIFICATION: I hereby declar rded, and are in all respects in proper Typed Name	re that the contents of this consign condition for transport according to	ment are fully and a b applicable internat Signature	ecurately o	described above ational governm	by the proper senental regulation	hipping name s.	Month Day Year
15. International Shipments	Low rent		1/					10 775
Transporter Signature (for exp		L_J Expor	t from U.S.		entry/exit: aving U.S.:			
16. Transporter Acknowledgm Transporter T Printed/Typed N	lada	NZ	Signature	X	148	>		Month Day Year
Transporter 2 Printed/Typed N			Signature	1				Month Day Year
17. Discrepancy								
17a. Discrepancy Indication S	pace Quantity	Туре		Residue	e Number:	Partial R	ejection	Full Rejection
17b. Alternate Facility (or Gen	erator)		ividi ili es	i rigiorgio	e Number.	U.S. EPA II) Number	
Facility's Phone:	allity (as County)			1				Market Barrier
17c. Signature of Alternate Fa	cility (or Generator)	400						Month Day Year
Facility's Phone: 17c, Signature of Alternate Fa		1						7
	r or Operator: Certification of receipt of	f materials covered by the manifes	t except as noted in	Item 17a				
Printed/Typed Name			Signature					Month Day Year

A	NON-HAZARDOUS WASTE MANIFEST 1. Generator ID Number	2. Page 1 of 3. Emerger	cy Respons	e Phone	4. Waste 1	racking Numb	er _{80Z}
	5. Generator's Name and Mailing Address in: Apartment Prop 2 Henry Adams Street, San Francisco, LA 9010 Generator's Phone:	Sulte 450	A Year	s (if different t	han mailing add	ress)	
	6. Transporter 1 Company Name	King			U.S. EPA ID	Number	68799
	7. Transporter 2 Company Name				U.S. EPA ID	Number	
	8. Designated Facility Name and Site Address 3673 Pattern B Subam, CA 94 Facility's Phone:				U.S. EPA ID	Number N/A	
	Waste Shipping Name and Description		10. Cont	ainers	11. Total	12. Unit	
	1,		No.	Туре	Quantity	Wt./Vol.	
GENERATOR	Non-Hazardous Soil	1		DT	18	CT	
- GEN	2.						
	3.						
	4,						18
1	Special Handling Instructions and Additional Information						
\	14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that to marked and labeled/placarded, and are in all respects in proper condition. Generator's/Offeror's Printed/Typed Name.	he contents of this consignment are fully and a	ccurately de onal and nat	scribed above ional governm	by the proper s ental regulation	nipping name, a	and are classified, packaged, Month Day Year
INT'L	15. International Shipments Import to U.S.	Export from U.S.	Port of e	ntry/exit:			P 1/ 1/
	Transporter Signature (for exports only): 16. Transporter Acknowledgment of Receipt of Materials			ring U.S.:			
TRANSPORTER	Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name	Signature Signature	K	wi	3		Month Day Year-
TRA	U						
1	17a. Discrepancy Indication Space Quantity	Туре	Residue		Partial Re	jection	Full Rejection
7	17b. Alternate Facility (or Generator)	Manifes	t Reference	Number:	U.S. EPA ID	Number	
D FACILIT	Facility's Phone:						
DESIGNATED FACILITY	17c. Signature of Alternate Facility (or Generator)						Month Day Year
DE DE	Designated Facility Owner or Operator: Certification of receipt of materia	als covered by the manifact avacat ac noted in	Item 17a				
	Printed/Typed Name	Signature	nom Ira				Month Day Year

NON-HAZARDOUS			onse Phone	4. Waste Tracking Number							
WASTE MANIFEST	N/A	1		5-5330		ETL	2803				
Generator's Name and Mailli Generator's Phone:	Dublin Apartment Prope 2 Henry Adams Street, S San Francisco, CA 94103	erties LLC uite 450	7	dress (if different i S44 Dublin Publin, SA	Blod						
6. Transporter 1 Company Name VERONICA TRUCKING						U.S. EPA ID Number CAR 000 18 36 5 7					
7. Transporter 2 Company Nan					U.S. EPA II) Number					
8. Designated Facility Name an	d Site Address Potrero Fulls L	andfil)			U.S. EPA II	Number .					
Facility's Phone:	3875 Potrero H Statem, CA 945	ills Lane 85-707-429-9600				N/4	¥.				
9. Waste Shipping Name	Waste Shipping Name and Description			Containers	11. Total	12. Unit					
1.			No.	Туре	Quantity	Wt./Vol.					
	ardous Seil		1	ETT	18	CY					
2.											
3.											
4.									44		
								7			
14. GENERATOR'S/OFFEROR	"S CERTIFICATION: I hereby declare that the ed, and are in all respects in proper condition road Name.	for transport according to applicable Signatur	nternational and	described above national government	by the proper s nental regulation	hipping name, a s.	Month	Day	Year		
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Transporter 2 Printed/Typed Na	V	Signatur	1			_	10	Day Z 7	Year / 5		
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17. Discrepancy											
17a. Discrepancy Indication Spa	Quantity	Туре	Residue		Partial Re	ejection		Full Rejec	tion		
17b. Alternate Facility (or General	rator)		Manifest Referen	ce Number:	U.S. EPA ID) Number					
Facility's Phone;					1						
17c. Signature of Alternate Faci	lity (or Generator)						Month	Day	Year		
18. Designated Facility Owner of	or Operator: Certification of receipt of materials	covered by the manifest except as r	oted in Item 17a								
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NON-HAZARDOUS				4. Waste Tracking Number				
WASTE MANIFEST	N/A	T	888-375-5336		BTI 28(H			
5, Generator's Name and Mai Generator's Phone:	ling Address Dublin Apartment Propo 2 Henry Adams Street, S San Francisco, CA 90103	erties LLC ulte 450		ess (if different ti		ress)		
Transporter 1 Company Na	U.S. EPA ID Number 403964							
7. Transporter 2 Company Na		KINY			U.S. EPA ID) Number		
8. Designated Facility Name a	and Site Address Potrero Hills I	andfill			U.S. EPA II			
Facility's Phone:	3875 Potrero E Suisin, CA 94	tills Lane 585 707-429-9600				N/A	1	
9. Waste Shipping Na	me and Description		10. Co	ontainers Type	11. Total Quantity	12. Unit Wt./Vol.		
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Non-Ha								
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	ions and Additional Information							
	i # PHLP-15-663 # for ER phone # is BR31029							
14. GENERATOR'S/OFFER	OR'S CERTIFICATION: I hereby declare that the arded, and are in all respects in proper condition	ne contents of this consignment are full	y and accurately nternational and	described above	e by the proper mental regulation	shipping name,	and are classified, packaged,	
Generator's/Offeror's Printed		Signatur		•			Month Day Year	
15. International Shipments Transporter Signature (for ex	Import to U.S.	Export from U.S.		of entry/exit:			n. I	
and the second s			Date	leaving U.S				
Transporter 1 Printed/Typed		Signatur	Tima	2/	Ba	26-	Month Day Year	
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17. Discrepancy								
17a. Discrepancy Indication	Space Quantity	Туре	Residue		Partial F	Rejection	Full Rejection	
17b. Alternate Facility (or Ge	enerator)		Manifest Referen	nce Number:	U.S. EPA	D Number		
Facility's Phone:								
Facility's Phone: 17c. Signature of Alternate F	facility (or Generator)						Month Day Yea	
L DESIG							17	
	er or Operator: Certification of receipt of materi			1				
Printed/Typed Name		Signatu	re.				Month Day Yea	

1	NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	2. Page	e 1 of 3, Emer	gency Respo	nse Phone	4. Waste	Fracking Num	ber_2817
		Ing Address in Apartment 2 Henry Adams Str San Francisco, CAS	Properties LLC set, Suite 450 94103 415-509-1441			ress (if different	han mailing add	ress)	
	Generator's Phone: 6. Transporter 1 Company Na	ime					U.S. EPA ID	Number	
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	8. Designated Facility Name a	3675 Pat	iilis Landtili rero Hills Lane IA 94585-707-432-462	7			U.S. EPA ID	Number N/	A
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	9. Waste Shipping Nan	me and Description			10. Co	ontainers	11. Total Quantity	12. Unit Wt./Vol.	
1	1.				IVO.	Туре	Quantity	***********	
GENERATOR		aardous Soil			I.	DT	IS	CY	
- GENE	2.	T.115 No ; 9D	100093						
	3.								
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	14. GENERATOR'S/OFFERO	DR'S CERTIFICATION: I hereby decla	re that the contents of this consign	nent are fully a	nd accorately	described above	by the proper s	hinning name	and are classified packaged
I.	marked and labeled/placa	rded, and are in all respects in proper	condition for transport according to	applicable inte	national and	national governm	nental regulation	IS.	and the visitational passings of
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TRANSPORTER	Transporter 2 Printed/Typed N	Name		Signature	2.05	O. T.			Month Day Year
A	17. Discrepancy								
	17a. Discrepancy Indication S	Space Quantity	Туре		Residue	an Northead	Partial R	ejection	Full Rejection
- YII	17b. Alternate Facility (or Ger	nerator)		Mar	ifest Referen	ce Number:	U.S. EPA ID) Number	
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DESIGNATED FACILITY	Facility's Phone: 17c. Signature of Alternate Fa	acility (or Generator)		Î			11,		Month Day Year
- DESIG									
	18. Designated Facility Owner	r or Operator: Certification of receipt o	f materials covered by the manifest	except as note	d in Item 17a				
1	Printed/Typed Name		7.00	Signature		7			Month Day Year
V									

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. [Page 1 of 3. Emerg	ency Respo	nse Phone	4. Waste	Tracking Numb	er 2815	
	iling Address in Apartment Prope 2 Henry Adams Street, 2 San Francisco, CA 9410	Ante 450	Generato		ress (if different t	han mailing add	ress)		
Generator's Phone: 6. Transporter 1 Company Na	ame / CTIA	700				U.S. EPA ID) Number		
	7 21 HK	- 1KO)							
7. Transporter 2 Company Na	ime.					U.S. EPA II) Number		
8. Designated Facility Name		s Candfill o Hills Lane				U.S. EPA II) Number		
Facility's Phone:		94585 707-432-4	627			1	No		
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Generator's/Offeror's Printed	Typed Name		Signature					Month Day	
15. International Shipments	Import to U.S.	Ex	port from U.S.	Port o	of entry/exit:				
Transporter Signature (for ex	ports only):		Andrew Ann		leaving U.S.:				
16. Transporter Acknowledge Transporter 1 Printed/Typed			Signature	FO	10	1		Month Day	Year
Transporter 2 Printed/Typed	Name		Signature					Month Day	Year
17. Discrepancy									
17a. Discrepancy Indication S	Space Quantity	Туре		Residue	ar Montain	Partial R	ejection	Full Rej	ection
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Facility's Phone:						1			1000
17c. Signature of Alternate F	actity (or Generator)							Month Day	Year
Facility's Phone: 17c. Signature of Alternate F									
18. Designated Facility Owner Printed/Typed Name	er or Operator: Certification of receipt of ma	aterials covered by the man	fest except as noted Signature	in Item 17a				Month Day	Year
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A	NON-HAZARDOUS WASTE MANIFEST	1. Generator (D. Number	2. Page 1 of 3.	Emergency Respons	se Phone	4. Waste	Tracking Numb	per_2815
	5. Generator's Name and Mail Generator's Phone:	Properties of the Properties o	uite 450	enerator's Site Addre	ss (if different t	han mailing add	ress)	
	6. Transporter 1 Company Na	me,				U.S. EPA ID	Number .	
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	7. Transporter 2 Company Na	ime				U.S. EPA II	Number	4
	8. Designated Facility Name a	3675 Potrero F				U.S. EPA IC	Number	A
	Facility's Phone:			10. Con	ntainers	11. Total	12. Unit	
	9. Waste Shipping Nan	me and Description		No.	Туре	Quantity	Wt./Vol.	
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- GENE	2.							
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	14. GENERATOR'S/OFFERO	DR'S CERTIFICATION: I hereby declare that the trided, and are in all respects in proper condition typed Name	ne contents of this consignment are in for transport according to applicable Signal	e international and n	lescribed above ational governr	e by the proper s	shipping name, ns.	Month Day Year
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A	17. Discrepancy							
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FACILITY	17b. Alternate Facility (or Ger	nerator)				U.S. EPA II	D Number	
DESIGNATED FA	Facility's Phone: 17c. Signature of Alternate Fa	acility (or Generator)						Month Day Year
- DESIG				1				
	18. Designated Facility Owne	er or Operator: Certification of receipt of materia	ils covered by the manifest except a	s noted in Item 17a				
A	Printed/Typed Name		Signa					Month Day Year

WASTE MANIFEST	1. Generator ID Number	1 1 1 2 2	mergency Respo	-3330			2812
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Board Ley	Tanks IIIC				1		
7. Transporter 2 Company Nar	ne				U.S. EPA ID	Number	
8. Designated Facility Name a	nd Site Address	s Langrin			U.S. EPA ID) Number	
	3675 Potrero					37/4	
Facility's Phone:	Sursun, CA.	94585, 707-432-4627				N/A	
9. Waste Shipping Nan	ne and Description		10. C	ontainers Type	11. Total Quantity	12. Unit Wt./Vol.	
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marked and labeled/placa	OR'S CERTIFICATION: I hereby declare the	dition for transport according to applicable	ully and accurately e international and	y described abov	e by the proper	shipping name, a	
Generator's/Offeror's Printed/		Signat	ure				Month Day Yea
15. International Shipments Transporter Signature (for ex	Import to U.S.	Export from U.S		of entry/exit:			
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NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 3	8. Emergency Respor	nse Phone	4. Waste 1	racking Numb	er_2813
	ng Addressijn Apartment Pro 2 Henry Adams Street ban Francisco, CA 941	, St/ite 450	Senerator's Site Addre	ess (if different t	han mailing add	ress)	
Generator's Phone: 6. Transporter 1 Company Na 7. Transporter 2 Company Na	y lanks	INC			U.S. EPA ID	0007	24568
8. Designated Facility Name a	3515 Petrero				U.S. EPA ID	Number	4
Facility's Phone: 9. Waste Shipping Nan	ne and Description			ontainers	11. Total	12. Unit	
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17b. Alternate Facility (or Gel	nerator)		Manifest Referen	ice Number:	U.S. EPA I	D Number	
17c. Signature of Alternate F	acility (or Generator)						Month Day
18. Designated Facility Owne	er or Operator: Certification of receipt of ma	aterials covered by the manifest except	as noted in Item 17a				
Printed/Typed Name		Sign	nature				Month Day

NON-HAZARDOUS WASTE MANIFEST	Generator ID Number	2. Page 1 of 3. Er	888-37	3-3430		Fracking Numb	7814
5. Generator's Name and Maili	Address in Apietment Propert 2 Herry Adams Street, Sur Sen Frencisco, CA 94103	168 J.L.C. 116 450	and the same of the	dress (if different t	han mailing add	ress)	
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3. Designated Facility Name a	nd Site Address Page of Aut S				U.S. EPA ID) Number	
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Seellik de Dhanna	SUED, CAS	1585 707-432-4627				Sand	4
Facility's Phone:			10.0	Containers	11. Total	12. Unit	
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Generator's Offeror's Printed		Signatu					Month Day
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	S.C. alia		Manifest Refer	ence Number:	II.C FD:	ID Number	
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Facility's Phone: 17c. Signature of Alternate F	acility (or Generator)						Month Day
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				7.			
18. Designated Facility Own	er or Operator: Certification of receipt of mate	erials covered by the manifest except as Signate		7a			Month Day



ATTACHMENT I

DSRSD Industrial Wastewater Discharge Permit & Disposal Log

Tino Maestas

From: Judy Zavadil «zavadil@dsrsd.com»

Sent: Tuesday, October 27, 2015 9:40 AM

To: Tino Maestas; Erik Kuefner

Cc: Matt Marks; doug.bablitch@amecfw.com; Steven Delight; Dan McIntyre

Subject: RE: Magnus Pacific: Request for Waiver to Discharge to the DSRSD Sanitary Sewer

Tino,

As Acting District Engineer I approve your request for a waiver to discharge wastewater with a total dissolved solids concentration exceeding 1000 mg/l. Please work with Erik Kuefner on the location, timing and rate of disposal of the drilling fluid.

Regards,

Judy Zavadil Principal Civil Engineer Dublin San Ramon Services District 7051 Dublin Blvd, Dublin, CA 94568 925-875-2272

From: Tino Maestas [mailto:TMaestas@magnuspacific.com]

Sent: Monday, October 26, 2015 3:39 PM **To:** Erik Kuefner < <u>kuefner@dsrsd.com</u>>

Cc: Judy Zavadil < zavadil@dsrsd.com; Matt Marks < Matt Marks < Marks@magnuspacific.com; doug.bablitch@amecfw.com

Subject: Magnus Pacific: Request for Waiver to Discharge to the DSRSD Sanitary Sewer

Judy,

Attached is our request for waiver. Please let me now if you require a more formal process that may be required for your review and approval.

We are hopeful to receive approval for our request as soon as possible to continue our demobilization progress this week.

I am available whenever necessary to provide further information, clarify concerns, or otherwise expedite your review. The analytical data in support of our request has been submitted to Erik. I have re-submitted this information at attachments to this email.

You can call me directly at 916-471-8210.

Thank you,



TINO B MAESTAS, P.E.

Project Director

6558 Lonetree Blvd, Rocklin, CA 95765

Office: 916.462.6419 Cell: 916.471.8210 magnuspacific.com

From: Erik Kuefner [mailto:kuefner@dsrsd.com]
Sent: Monday, October 26, 2015 11:47 AM

To: Tino Maestas **Cc:** Judy Zavadil

Subject: RE: 150019. - C&T Data (270885)

Hi Tino,

I heard back from the Acting District Engineer, Judy Zavadil. I've cc'd her on this email, so if you attach the request to waive the TDS local limit, go ahead and "reply all".

Thanks,

Erik

From: Tino Maestas [mailto:TMaestas@magnuspacific.com]

Sent: Saturday, October 24, 2015 8:24 AM
To: Erik Kuefner < kuefner@dsrsd.com
Subject: FW: 150019. - C&T Data (270885)

Hi Eric,

We continue to have high concentrations of TDS. After further inquiry, this is attributed to our drilling fluid matrix. The guar gum that we use for manufacturing our slurry is the dissolved solids portion.

I would appreciate any expertise that you may offer. In the mean time, I am in discussion with a few of my water treatment specialist to see what I can do to reduce the TDS concentration. I am also looking into disposal at East Bay Municipal Utility District of the fluid as-is.

Does the DSRSD offer direct-disposal?

Anyway, we are <u>not</u> discharging this weekend.

I will call you on Monday to discuss.

Tino

From: Will Rice [mailto:will.rice@ctberk.com]
Sent: Friday, October 23, 2015 5:25 PM

To: Tino Maestas

Subject: 150019. - C&T Data (270885)

Hi Tino,

Please find attached the following files:

- Invoice
- Chain of Custody
- PDF Deliverable

C&T sends its e-reports via the Internet as Portable Document Format (PDF) files. Reports in this format, when accompanied by a signed cover page, are considered official reports. **No hardcopy reports will be sent either by fax or U.S. Postal Service unless otherwise requested.** You may distribute your PDF files electronically or as printed hardcopies, as long as they are distributed in their entirety.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Company Officer:	Name: Matthew D. Marks
	Title: Vice President/Regional Manager
	Signature: VIII DM
	Date: 10/30/15

			Cummulative
		Quantity	Quantity
Date	Time	(GAL)	(GAL)
10/27/2015	2:50 PM	1700	1700
10/27/2015	3:40 PM	1700	3400
10/27/2015	4:20 PM	1700	5100
10/28/2015	8:45 AM	1700	6800
10/28/2015	9:35 AM	1700	8500
10/28/2015	10:25 AM	1700	10200
10/28/2015	11:50 AM	1700	11900
10/28/2015	1:30 PM	1700	13600
10/28/2015	1:50 PM	3700	17300
10/28/2015	2:00 PM	1700	19000
10/28/2015	3:20 PM	3700	22700
10/28/2015	3:30 PM	1700	24400
10/28/2015	4:20 PM	3700	28100
10/28/2015	4:50 PM	1700	29800
10/29/2015	7:40 AM	1700	31500
10/29/2015	7:50 AM	3700	35200
10/29/2015	11:30 AM	2000	37200
	TOTAL (GAL)	37200	

Note: volumetric dishcharge estimated by the number of loads discharged by a water truck. Magnus used a 2,000-GAL capacity water truck and 4,000-GAL capacity water truck throughout discharge of wasterwater to the DSRSD sanitary sewer. The total volume is a reasonable estimate compared to the capacity of the storage tanks. Magnus had (2) 21,000-GAL capacity frac tanks on-site which each was holding approximately 18,000-GAL/ea.



A GREAT LAKES DREDGE & DOCK

Magnus Pacific, LLC 6558 Lonetree Blvd. Rocklin, CA 95765 magnuspacific.com

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A GREAT LAKES DREDGE & DOCK Magnus Pacific, LLC 6558 Lonetree Blvd. Rocklin, CA 95765 magnuspacific.com

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8	320	3700	410				
9	330	1700	430				
10	420	3700	510				
11	450	1700	510				
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A GREAT LAKES DREDGE & DOCK Magnus Pacific, LLC 6558 Lonetree Blvd. Rocklin, CA 95765 magnuspacific.com

JOB	
SHEET NO	OF
CALCULATED BY	DATE
CHECKED BY	DATE
SCALE	

10-29	9-2015		Engl Time 805 Am	
U	Dater Dis	posal		
Trlc	time	Gallons	End Time	
172	740 Am	1700	805 AM	
2	750 AM	3700	8:40 Am	
3		2000	12:40 Am	
	+			-
				-
				<u> </u>



DUBLIN SAN RAMON SERVICES DISTRICT PRETREATMENT PROGRAM INDUSTRIAL WASTEWATER DISCHARGE PERMIT

PERMIT # 15018

Effective Date: October 12, 2015

Expiration Date: March 31, 2016

Permit Fee: \$740.00

IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THE DUBLIN SAN RAMON SERVICES DISTRICT'S SEWAGE CODE (TITLE 5, CHAPTER 5.20), AND ALSO WITH ANY AND ALL APPLICABLE PROVISIONS OF FEDERAL AND/OR STATE LAWS OR REGULATIONS, PERMISSION IS HEREBY GRANTED TO:

> MAGNUS PACIFIC LLC 6558 LONETREE BLVD. ROCKLIN, CA 95765

SIC CLASSIFICATION: 1794 (Excavation Work)

FOR THE DISPOSAL OF WASTEWATER INTO THE SANITARY SEWER AT THE SITE ADDRESS OF:

> 7544 DUBLIN BLVD. DUBLIN, CA AND 94568

DISCHARGER UNDERSTANDS ALL THE CONDITIONS OF THIS PERMIT AND AGREES TO COMPLY WITH THESE CONDITIONS AND THE DISTRICT'S SEWAGE CODE (TITLE 5, CHAPTER 5.20). FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT MAY BE GROUNDS FOR ADMINISTRATIVE ACTION, OR ENFORCEMENT PROCEEDINGS INCLUDING CIVIL OR CRIMINAL PENALTIES, INJUNCTIVE RELIEF, PERMIT REVOCATION AND SUMMARY ABATEMENTS.

IN ADDITION, THE DISCHARGER UNDERSTANDS THAT COMPLIANCE WITH THIS PERMIT DOES NOT RELIEVE THE DISCHARGER FROM COMPLIANCE WITH ANY AND ALL LOCAL, STATE AND FEDERAL PRETREATMENT STANDARDS AND REQUIREMENTS INCLUDING ANY SUCH STANDARDS OR REQUIREMENTS THAT MAY BECOME EFFECTIVE DURING THE TERM OF THIS PERMIT.

COMPANY OFFICER:

TINO MAESTAS

PROJECT DIRECTOR

DISTRICT REPRESENTATIVE:

DISTRICT ENGINEER

PART 1-GENERAL INFORMATION

MAILING ADDRESS					
Street: 655	58 Lonetree Blvd				
City: Roc	klin	State:	CA	_ Zip:	95765
BUSINESS ADDRESS					
Street: Sar	ne	Q.1		H 1	
City:		State:	-	_ Zip:	
CORPORATE INFORMA	TION (If Applicable)				
	ddress: 6558 Lonetre	ee Blvd			
	Rocklin	State:	CA	Zip:	95765
State of Inc	corporation:	California			
Corporate Ac		thew Marks			
Agent Addres					
City:	, b	State:		Zip:	
Agent Phone	#: 916-4	162-6423			
PROPERTY OWNER					
Name:	Dublin Apartme	nt Properties Ll	C		
Address:	2 Henry Adam	ms Street, Suite	450		
City: San	Francisco	State:	CA	_Zip:	94103
Chief Executive O	fficer, General Partne				
Name:	Louay Owaidat		Preside	nt	
Address:	6558 Lonetre	ee Blvd			
City: Rock	lin	State:	CA	_ Zip:	95765
PERSON TO SIGN TH		m'	.	D' .	
	Maestas	Title:		Direct	or
Phone #:(Day	916-471-8210	(Night) _	Same		
DEDCOM TO DE COMT	ACTED ABOUT THIS PERM	Tr			
	Maestas		Project	Direct	or
	7) 916-471-8210	(Night)	Same	DITECT	01
Phone #: (Day	7) 916-471-8210	(NIGIIC) _	Same		;
PERSON TO BE CONT	ACTED IN CASE OF EMERO	GENCY			
	Maestas	Title:	Project	Direct	or
Phone #: (Day		(Night)	Same	<u> </u>	
2110110 11 (20)					
TYPE OF BUSINESS	OR OPERATION:				
Specialty Geotec	hnical & Environmental	l General Contra	ctor		
					-
DESCRIPTION OF AP	PLICABLE PROCESSES:		windler state and a second		
	PROCESS DESCRIPTION		40	CFR PR	OCESS
,	INOCHES DESCRIPTION	***************************************		OIN IN	00100
Permeable Re	eactive Barrier Instal	lation		N/A	
		· · · · · · · · · · · · · · · · · · ·			

PART 2 - FEES AND CHARGES

The Discharger identified on the title page of this permit is hereby given authorization to discharge industrial/commercial wastewater into the sanitary sewer provided that:

- a. The Discharger makes payment of sewer service charges in association with the industrial/commercial wastewater discharge. Sewer service charges are based on the flow and strength of the wastewater. The strength of the wastewater is measured by the Biochemical Oxygen Demand (BOD) and the Total Suspended Solids (TSS) analyses.
- b. The Discharger makes payment of the fees associated with the administration of this permit. Fees shall include, but not limited to, permit fees, inspection fees and sampling & analysis fees. Other fees may apply as a result of escalated enforcement action.

PART 3 - MONITORING REQUIREMENTS

I. DISCHARGE LIMITATIONS

- a. Only wastewater generated from the the installation of the Permeable Reactive Barrier is permitted. No domestic and/or industrial/commercial wastewaters are granted under this permit.
- b. The rate of discharge shall not exceed 100 gallons per minute (qpm).
- c. The Discharger shall also comply with the prohibited discharges referenced in Title 5, Chapter 5.20 of the District Code.
- d. The volume of wastewater discharged to the sanitary sewer shall be documented as required in Part 4, Section IV. of this permit.

The Discharger shall comply with all discharge limitations referenced in Appendix A of this permit as they apply to any facility discharge which is analyzed by approved methods and/or permit conditions.

The Discharger shall also comply with the prohibited discharges referenced in Title 5, Chapter 5.20 of the District Code.

II. REPRESENTATIVE SAMPLING

Effluent samples collected for analyses shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring point(s) specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water or substance. All equipment used for sampling must be routinely inspected and maintained to ensure their accuracy.

sampling must be routinely inspected and maintained to ensure their accuracy.

III. SAMPLING AND ANALYSIS

The Discharger shall comply with the following sampling and analysis requirements:

- a. The facility's wastewater discharge shall be sampled, at a minimum, according to the required sampling frequency outlined in Appendix A. Unless otherwise specified, all sampling required by this permit will be performed by District staff.
- b. All samples for the pollutants listed in Appendix A of this permit shall be taken at the designated sampling location(s) referenced in Appendix B of this permit.
- c. All handling, preservation, and holding times of collected samples and laboratory analyses of samples shall be performed in accordance with 40 CFR, Part 136 and amendments thereto unless specified otherwise in the monitoring conditions of this permit. In addition, all samples shall be delivered as soon as possible to the certified laboratory, but never shall the delivery of the samples to the laboratory exceed twenty-four (24) hours from the time the samples were obtained.
- d. The laboratory selected to perform the analyses must be certified by the State of California Department of Health Services for wastewater analyses.

IV. VIOLATION RESAMPLING

If the results of any wastewater analysis performed by, or at the direction of, the Discharger indicates that a violation of this permit has occurred, the Discharger must:

- a. Inform the District of the violation within 24 hours of becoming aware of the violation; and
- b. Repeat the sampling and pollutant analysis and submit, in writing, the results of this second analysis within thirty (30) days from the date the Discharger first becomes informed of the violation.

Currently, the District performs all monitoring requirements on behalf of the Discharger, including resampling. However, in the event of District notification to the Discharger that the District will no longer perform the monitoring, the Discharger is responsible for the required sampling as listed in Appendix A, as well as violation resampling requirements.

PART 4 - REPORTING REQUIREMENTS

The Discharger shall notify the District at least 48 hours prior to the actual discharge.

I. MONITORING REPORTS

If the Discharger monitors any pollutant more frequently than required by this permit, using test procedures prescribed in 40 CFR, Part 136 or amendments thereto, or otherwise approved by the EPA, or as specified in this permit, the results of such monitoring shall be submitted within 45 days of the monitoring date to the District to determine compliance with all discharge limits as referenced in Appendix A. The monitoring results shall be submitted with the Signatory Requirement referenced in Part 5, Section XI. of this permit. Also, these monitoring results shall be included in the calculations to determine if and when the Discharger is in "Significant Noncompliance".

II. ACCIDENTAL DISCHARGE REPORT

The Discharger shall notify the District immediately, by telephone, upon becoming aware of the occurrence of any accidental discharge of substances prohibited by this permit or the District Code or of any slug discharges or spills that may enter the sanitary sewer. The Discharger shall call the following telephone number to notify the District of such discharges:

(925) 846-4565 (24 hours a day)

The telephone message must include the following information:

- a. Business name, contact person, and telephone number.
- b. Location and time of discharge.
- c. Composition of the waste including hazardous properties.
- d. Concentration and volume.
- e. Immediate corrective actions taken.
- f. Any other information deemed relevant.

Within five (5) days following the accidental discharge the Discharger shall submit to the District a detailed written report. The report shall provide the following information:

- a. Description and cause of the upset, **slug load** or accidental discharge. The description shall include the location of the discharge, and the composition, concentration and volume of waste.
- b. Duration of noncompliance, including exact dates and times of noncompliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur.

- c. All steps taken, or to be taken, to reduce, eliminate, and/or prevent recurrence of such an upset, **slug load**, accidental discharge, or other conditions of noncompliance.
- d. Any information deemed relevant.

It shall be the responsibility of the Discharger to notify the District of any unusual discharge whether or not the Discharger is aware of any possible impact to the District's facilities or operations.

The Discharger's notification to the District of accidental discharges does not relieve the Discharger of other reporting requirements in accordance with local, state, or federal laws.

III. BYPASS OF TREATMENT FACILITIES

- a) Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury, or severe property damage or no feasible alternatives exist.
- b) Notification of bypass:
 - (1) Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior written notice, at least ten days before the date of the bypass, to the District.
 - (2) Unanticipated bypass. The Discharger shall immediately notify, the District, by telephone, and submit written notice to the District within 5 days. This report shall specify:
 - (i) A description of the bypass, and its cause, including its duration;
 - (ii) Whether the bypass has been corrected; and
 - (iii) The steps being taken or to be taken to reduce, eliminate and prevent a reoccurrence of the bypass.
- c) The Discharger may allow bypass to occur which does not cause effluent limitations to be exceeded, but only if it is also for essential maintenance to assure efficient operation. These bypasses are not subject to paragraphs (a) and (b) of this section.

IV. DISCHARGE REPORT

The Discharger shall submit a discharge report to the District documenting certain activities, which occurred during that month. The monthly report shall be due at the District Office within thirty (30) days after the month's end and shall include the following:

- a. A log documenting the volume of treated wastewater discharged to the sanitary sewer during the reporting period.
- b. The submission, by an authorized representative, of the Signatory Requirement referenced in Part 5, Section XI. of this permit.

All reports required by this permit shall be submitted, along with the signatory requirement reference in Part 5, Section XI. of this permit to Dublin San Ramon Services District at the following address:

Dublin San Ramon Services District, RWTF
7399 Johnson Drive
Pleasanton, CA 94588
ATTENTION: Environmental Compliance Section

PART 5 - STANDARD CONDITIONS

I. INSPECTION AND ENTRY

The Discharger shall grant the District staff or authorized representatives entrance to the permitted facility for the purposes of inspection and sampling at all reasonable times. The inspection shall include the examination of all files pertaining to the requirements contained within this permit and the District's Sewerage Code and/or the examination of all sources of industrial wastewater discharge.

In addition, the Discharger shall inform District staff of the facility's safety procedures and requirements including the use of personal protective equipment.

II. DILUTION

The Discharger shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained within this permit, any National Pretreatment Standards, or any other wastewater effluent limitation developed by the District or State.

III. FACILITY MODIFICATION/CHANGES

The Discharger shall notify the District at least 30 days prior to any facility expansion, production increase, or process modification which results in new or substantially increased wastewater discharges or a change in the nature of the wastewater discharge.

Furthermore, the Discharger shall obtain prior approval from the District before discharging any new sources of wastewater, wastewater discharges that have substantially increased in volume, and/or any source of wastewater that has changed in nature.

IV. ANTICIPATED NONCOMPLIANCE

The Discharger shall give notice to the District at least 30 days prior to any planned changes in the permitted facility or activity, which may result in noncompliance with the requirements in this permit.

V. HAZARDOUS AND NON-SEWERABLE WASTES

Solids, sludge, filter backwash, non-sewerable wastewater, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with all applicable state, federal and local laws. Spent chemical solutions, and any toxic or hazardous wastes shall be either disposed of at an authorized site by a properly licensed hazardous waste hauler, or recycled by a properly licensed recycler. No discharge of untreated spent chemical solutions and/or hazardous wastes to the public sewer is permitted.

VI. SPILL PROTECTION

The Discharger shall provide adequate protection including, but not limited to, secondary containment for all hazardous chemicals, hazardous waste and non-sewerable wastes which are stored in areas where potential spills could reach the facility's floor drains.

VII. OPERATIONS AND MAINTENANCE

The Discharger shall properly operate and maintain all pretreatment facilities that were installed or used to achieve compliance with this permit.

VIII. RECORDS/LOGS

The Discharger shall maintain logs and records of all data pertaining to the operations and maintenance activities implemented for the purpose of achieving compliance with this permit. Such documentation shall include, but not limited to, records/logs for calibrations, spent chemical bath solutions, flow data, water usage data, chemical

dose rates, routine maintenance of equipment, routine treatment process checks, analyses and process changes, as they pertain to the process wastewaters discharged from the facility.

IX. RECORDS RETENTION

The Discharger shall retain all records pertaining to the requirements set forth in this permit including, but not limited to, effluent sampling and analysis data, reports, calibration and maintenance records, logs, all original strip chart recordings for continuous monitoring instruments and receipts for off-haul of hazardous and non-sewerable wastes for a period of three (3) years.

These records shall be made available to officials of the EPA, State and the District or their authorized representatives.

In addition, all records pertaining to any investigation or enforcement action brought by the EPA, State or the District shall be retained for a minimum of three (3) years from the date of the conclusion of the investigation or enforcement action.

X. PERMIT MODIFICATIONS

The District reserves the right to revise this permit if deemed necessary to comply with objectives presented in the District Code. No revision of the limitations or requirements hereunder shall subject the District to civil liability or penalty for interference with a vested right of the Discharger. This permit may be modified only by the District.

XI. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the District must contain the following certification statement followed by the signature and title of the officer representing the Discharger and the date the document was signed:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

XII. CONFIDENTIALITY

The Discharger may request that documents submitted to the District, which may disclose restricted information or restricted processes, to be kept confidential and **not** available to the public. However, these documents shall be available upon request to other governmental agencies in affiliation with the EPA Pretreatment Program and/or the National Pollutant Discharge Elimination System (NPDES). In addition, these documents shall be made available in enforcement procedures by the District, Federal and/or the State or state agency implicating the Discharger.

Pretreatment records such as reports, questionnaires/permit applications, permits, inspection reports, violation notices, enforcement actions, wastewater flow and effluent data shall not be considered confidential.

XIII. TRANSFERABILITY

This Industrial Wastewater Discharge Permit is non-transferable and valid only to the industry and owner to whom it is originally issued. Transfer of ownership, changes to any industrial processes, or a significant change of wastewater quality shall void the permit.

XIV. ENFORCEMENT

Section 5.20.520 (B) of the District Code provides that any Discharger who violates a permit condition is subject to civil penalties not to exceed Twenty Five Thousand Dollars (\$25,000) for each day of such violations. Section 5.20.560 (B) of the District Code provides that any person who willfully or negligently violates permit conditions is subject to criminal penalties of a fine not to exceed One Thousand Dollars (\$1,000) per day of violation, or by imprisonment in the county jail not to exceed six (6) months, or both. The Discharger may also be subject to sanctions under State and/or Federal Law.

In addition to civil and criminal liability, the Discharger violating any of the provisions of this permit or Title 5 of the District Code or causing damage to or otherwise inhibiting the District's wastewater disposal system shall be liable to the District for any expense, loss, or damage caused by such violation or discharge. The District shall bill the Discharger for the costs incurred by the District for any cleaning, repair, or replacement work caused by the violation or discharge. Refusal to pay the assessed costs shall constitute a separate violation of Section 5.20.520 (E) of the District Code.

XV. DUTY TO REAPPLY

If the activities regulated by this permit are planned, or anticipated, to be continued after the expiration date of this permit, the Discharger must submit a written request for the issuance of a new permit at least thirty (30) days prior to the expiration date of this permit.

XVI. CONTINUATION OF EXPIRED PERMITS

An expired permit shall continue to be effective and enforceable until a new permit has been reissued if:

- a. The Discharger has submitted a completed permit application at least 30 days prior to the expiration of the Discharger's current permit.
- b. The failure to reissue the new permit, prior to the expiration of the previous permit, is not due to any act or failure to act on the part of the Discharger.

XVII. ANNUAL PUBLICATION

required by the Federal Pretreatment Regulations comply with the District shall 403.8(f)(2)(viii)) the participation requirements of 40 CFR Part 25. Subsequently, in "Significant industrial/commercial user determined to Noncompliance" with applicable pretreatment requirements at any time during the last twelve (12) months shall be published in the largest newspaper circulated in the District's service area. defines the criteria used to determine "Significant Noncompliance".

APPENDIX A

DISCHARGE LIMITATIONS

The table below lists the maximum concentrations allowed to be discharged into the sanitary sewer per the District code and federal regulations. Local limits apply as instantaneous maximum values for grab samples, and as daily maximum values for composite samples. Currently, the District performs all monitoring requirements on behalf of the Discharger. However, in the event of District notification to the Discharger that the District will no longer perform the monitoring, the Discharger is responsible for the required sampling frequency as listed below, as well as violation resampling requirements as specified in Part 3, Section 4 of this permit.

The last column indicates the required sampling frequency. "--" indicates that these pollutants are not sampled on a routine basis. However, this **does not** relieve the Discharger from also complying with these limits. The District reserves the right to sample for any local limit pollutant.

POLLUTANT	LOCAL LIMIT	FEDERAL LIMIT DAILY MAX AVG	SAMPLE TYPE	REQUIRED SAMPLING FREQUENCY	
	B	mg/l mg/l			
ARSENIC	0.50	NA NA	G		
CADMIUM	1.00	NA NA	G		
CHROMIUM	1.00	NA NA	G		
COPPER	1.00	NA NA	G		
LEAD	2.00	NA NA	G		
MERCURY	0.010	NA NA	G		
NICKEL	1.50	NA NA	G		
SELENIUM	1.30	NA NA	G		
SILVER	1.50	NA NA	G		
ZINC	4.00	NA NA	G		
CYANIDE	0.50	NA NA	G		
PHENOLS	20.0	NA NA	G		
T.I.C.H. (608)	0.02	NA NA	G		
PCBs (608)	0.01	NA NA	G		
* T.T.O. (624 ONLY)	5,00*	NA* NA*	G&C	PER BATCH	
PAH (610)	6.50	NA NA	С		
OIL/GREASE (HYDROCARBON) (ANIMAL/VEG.)	150 200	NA NA	G		
TPH-GAS & TPH-DIESEL	15.0	NA NA	G&C		
EPA 602 (BTEX)	1.00	NA NA	G		
TOTAL DISSOLVED SOLIDS (TDS)	1000	NA NA	С		
RADIOACTIVITY	NA_	FS FS	С		
TOTAL SULFIDES	2.0	NA NA	С		
B.O.D.	NA	NA NA	С		
C.O.D.	NA	NA NA	С	<u>-</u>	
T.S.S.	NA	NA NA	С		
pН	MIN. 6.0** MAX. 11.0**	NA NA NA NA	G	PER BATCH	

NA = NOT APPLICABLE

G = GRAB

C = COMPOSITE

PAH = POLYNUCLEAR AROMATIC HYDROCARBONS

TPH = TOTAL PETROLEUM HYDROCARBONS

* T.T.O. = TOTAL TOXIC ORGANICS PER DISTRICT CODE 5 APPENDIX

** = pH UNITS

AVG = MONTHLY AVERAGE

T.I.C.H. = TOTAL IDENTIFIABLE CHLORINATED HYDROCARBONS FS=REFER TO FEDERAL OR STATE REGS. (10CFR 20 0R CCR TITLE 17)

APPENDIX B

DISCHARGE LOCATION

APPENDIX B

MAGNUS PACIFIC LLC

The sampling location (IWD-001) shall be the contents of the holding tank containing the wastewater generated from the installation of the Permeable Reactive Barrier.

PERMIT# 15018

APPENDIX C

SIGNIFICANT NONCOMPLIANCE

SIGNIFICANT NONCOMPLIANCE

Instances of Significant Noncompliance (SNC) are industrial user violations which meet one or more of the following criteria:

- 1. Violations of the wastewater discharge limits.
 - a. Chronic violations. Sixty-six percent or more of the measurements which exceed, by any magnitude, the daily maximum limit or the average limit during a 6-month period for the same pollutant parameter.
 - b. Technical Review Criteria (TRC) violations. Thirty-three percent or more of the measurements, for the same pollutant, which exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC, during a 6-month period.

There are two groups or TRC's:

Group I for conventional pollutants (BOD, TSS, fats, oil and grease)	TRC =	1.4
Group II for all other pollutant, except pH	TRC =	1.2

- c. Any other violation(s) of an effluent limit (average or daily maximum) that the District believes has caused, alone or in combination with other discharges, interference (e.g., slug loads) or pass-through; or endangered the health of the sewage treatment personnel or the public.
- d. Any discharge of a pollutant that has caused imminent endangerment to human health/welfare or to the environment and has resulted in the District's exercise of its emergency authority to halt or prevent such a discharge.
- 2. Failure to meet, within 90 days after the compliance date, <u>compliance schedule milestones</u> contained in a permit or enforcement order for starting construction, completing construction, or attaining final compliance.
- 3. Failure to provide <u>reports</u> for compliance schedules, self-monitoring data, or categorical standards (baseline monitoring reports, 90-day compliance reports, and periodic reports) within 30 days from the due date.
- 4. Failure to accurately report noncompliance.
- 5. Any other violation or group of violations that the District considers to be significant.



AT.	ТΔ	CH	lМ	FN	JT	

Magnetic Test Procedure, ZVI/Sand Batch Logs & Magnetic Separation Test Data

MAGNETIC SEPARATION TESTING PROCEDURE

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes a protocol for magnetic separation testing of granular zero valent iron and sand mixtures. The magnetic separation test allows determination of the weights of granular zero valent iron and sand in the mixture.

1.02 DEFINITIONS

The terms used in this Section are defined as follows:

A. Permeable Reactive Barrier

A permeable reactive barrier is a permeable reactive substance constructed in the subsurface orthogonal to the groundwater flow direction with the purpose of treating contaminants in groundwater as they pass through the barrier.

B. Granular ZVI (Granular ZVI)

Granular ZVI is a reactive material that is mixed with sand and placed in the permeable reactive barrier. Granular ZVI chemically degrades certain groundwater contaminants when they contact the granular ZVI.

PART 2 - MATERIALS

2.01 GRANULAR ZVI AND SAND MIXTURE SAMPLE

A. A 250 to 1,000 gram sample (0.5 to 2 lbs) of the granular ZVI and sand mixture should be obtained and placed in sample containers.

2.02 SUPPLIES

- A. Sample containers
- B. Balance/scale (battery powered scale if electrical outlet is not available, must be able to measure up to approximately 1,000 grams)

- C. Hot plate, if electrical outlet available (or propane camping stove)
- D. Frying pan (8 in or 10 in)
- E. Large metal spoon
- F. Disposable aluminum cookie sheet
- G. Magnet (heavy duty from hardware store)
- H. Ziplock bags
- I. Sharpie pen(s)
- J. Worksheets/log book

2.03 EXECUTION

- A. Weigh the empty containers that the samples will be collected in.
- B. Samples of the iron-sand mixture are collected from the discharge of the mixing device (e.g., shoot of a concrete mixer) and/or from the backfilled material in the excavation. The frequency and location of samples is dependent on the objectives of each project.
- C. Weigh the sample (empty container and sample) and record the weight. Determine the net weight of the sample by subtracting the empty sample container weight. A suitable weighing device (balance or scale) must be used.
- D. Dry the sample. If cemented together during drying, lightly breakup. Weigh and record the net dry weight.
- E. Spread the sample out in a suitable container (e.g., disposable aluminum cookie sheet, etc.).
- F. Cover the magnet in a material (such as a plastic bag) to allow the magnetic material to be easily separated from the magnet.
- G. Pass the magnet over the sample to remove the magnetic (granular ZVI) fraction. Care must be taken to minimize the trapping of sand particles within the granular ZVI grains. The magnetic fraction is removed from the magnet and placed in a container.
- H. Continue passing the magnet over the material until no more magnetic material is removed. Mixing of the non-magnetic fraction between passes may be required to obtain all the magnetic particles.

- I. The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H should at least three more times to ensure the magnetic and non-magnetic fractions are completely separated. After each separation, the non-magnetic fraction should be added to the non-magnetic fraction from the previous separation.
- J. Weight the magnetic and non-magnetic fractions and record weights. The total net weight of the magnetic and non-magnetic fractions should be the same as the weight prior to separation.
- K. The dry iron net weight percent is determined by:

$$Dry \ Iron \ Net \ Weight \ Percent = \frac{Net \ Weight \ of \ Magnetic \ Material}{Total \ Net \ Weight \ of \ Dry \ Sample} \times 100$$

L. Estimated time to complete the magnetic separation test is about 15 to 25 minutes per sample, depending on the moisture of the sample.

END OF SECTION

ZVI PRB PROJECT DUBLIN APARTMENTS 7544 DUBLIN BLVD, DUBLIN, CA

MAGNUS

ZVI Batch Mixing Log

Date	10-13-15	Job No.	Technician	Havris	
------	----------	---------	------------	--------	--

Batch No.	Time	Truck No.	% Iron by Weight	Pass?	# of Iron Bags Used	# of Sand Bags Used
01		70			12020	7418
02	14	OF			12020	7403
03	4:00 pm	70			12020	7403
04		70			12020	
05						
06						
07						
08						
09						
10						
11						
12						
13						
14	T					
15						
16						
17						
18						
19						
20				- 10		

Da	ate 10/13/15 Job No.	. Betch #1	Technician Zach Calburn
А	Weight of empty container	370.0	grams
В	Sample the iron-sand mixture	re from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	1837.3	grams
	Bulk weight of sample A - C	467.3	grams
D	Net dry weight of sample	467.3	grams
Е	Spread the sampleout in a s	uitable container ((e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	c bag	
G	Pass the magnet over the sa magnetic fraction in new con	ample to remove that intainer	he magetic (granular ZVI) fraction. Place
н	Continue passing the magne	et over the materia	al until no more magnetic material is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	356.8	grams
	Weight of sand fraction	109.7	grams
K	Dry Iron Net Weight % J ÷ D x 100%	76.35	%



Da	10/13/2015 Job No.	Batch #2	Technician Zach Colburn		
А	Weight of empty container	380,9	grams		
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill		
С	Weight of container + sample	881.2	grams		
	Bulk weight of sample A - C	500.3	grams		
D	Net dry weight of sample	500.3	grams		
Е	Spread the sampleout in a su	uitable container (e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plastic	bag			
G	Pass the magnet over the sa magnetic fraction in new conf	mple to remove thainer	ne magetic (granular ZVI) fraction. Place		
Н	Continue passing the magnet	t over the materia	I until no more magnetic material is removed		
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.				
J	Weight of iron fraction	306.7	grams 499,4		
	Weight of sand fraction	192.7	grams		
K	Dry Iron Net Weight % J ÷ D x 100%	61.30	%		

Da	te 10/13/2015 Job No.	Betch#3	Test Technician Zech Colburn		
А	Weight of empty container	369.9	grams		
В	Sample the iron-sand mixtur	e from the discha	rge of the mixing truck or backfill		
С	Weight of container + sample	880	grams		
	Bulk weight of sample A - C	510.	grams		
D	Net dry weight of sample	510.1	grams		
Ε	Spread the sampleout in a su	uitable container ((e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plastic	e bag			
G	Pass the magnet over the sa magnetic fraction in new con	mple to remove thainer	ne magetic (granular ZVI) fraction. Place		
Н	Continue passing the magne	t over the materia	l until no more magnetic material is removed		
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.				
J	Weight of iron fraction	299.9	grams		
	Weight of sand fraction	209.6	grams		
K	Dry Iron Net Weight % J ÷ D x 100%	58.2	%		

Da	te 10/13/2015 Job No.	. Batch #3 Test	Technician
А	Weight of empty container	380.9	grams
В	Sample the iron-sand mixture	re from the dischar	ge of the mixing truck or backfill
С	Weight of container + sample	831.7	grams
	Bulk weight of sample A - C	450.8	grams
D	Net dry weight of sample	450.8	grams
E	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag	
G	Pass the magnet over the sa magnetic fraction in new con	ample to remove thatainer	e magetic (granular ZVI) fraction. Place
Н	Continue passing the magne	et over the material	until no more magnetic material is removed
ľ	The magnetic fraction may c at least 3 more times.	ontain some non-n	nagnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	285,0	grams 450
	Weight of sand fraction	165.0	grams
K	Dry Iron Net Weight % J ÷ D x 100%	63.2	%

ZVI PRB PROJECT DUBLIN APARTMENTS 7544 DUBLIN BLVD, DUBLIN, CA

MAGNUS

ZVI Batch Mixing Log

Date 10 -14 - 15 Job No. Technician Harry

Batch No.	Time	Truck No.	% Iron by Weight	Pass?	# of Iron Bags Used	# of Sand Bags Used
01					12016	7403
02	8:59			•	12016.	741)
03					12016	7410
04	11:30				12016	7388
05	12:39	46			12016	7413
06	1=18				12016	7388
07	1:56				12016	7449
08	3:09				12016	7398
09	3:42				12016	7399
10	4:19				12016	7393
11	5.24				12000	7399
12						
13						
14	Mis	ed 2	12 Bo	Tokes a	of Guo	1
15			<6 =		lars Gua	V 19
16	V	7.5 m	1. X 2. Juni	- 13	5.8 90	Busch
17		1/2	sed of golla	soda	ash	
18		125	00 gella	y We	Tov	26
19		1				
20		4		22		







Date	e (0-14-2015 Job No.	Trench @ 105	Technician Zach Colburn		
Α	Weight of empty container	558.9	grams		
В	Sample the iron-sand mixture	e from the dischar	ge of the mixing truck or backfill		
С	Weight of container + sample	1318.6	grams		
	Bulk weight of sample A - C	759.7	grams wet		
D	Net dry weight of sample	579.9	grams		
Е	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plasti	c bag			
G	Pass the magnet over the sa magnetic fraction in new cor		he magetic (granular ZVI) fraction. Place		
н	Continue passing the magne	et over the materia	al until no more magnetic material is removed		
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.				
j	Weight of iron fraction	402.6	grams		
	Weight of sand fraction	177.6	grams		
к	Dry Iron Net Weight % J ÷ D x 100%	69.42	%		



	Truck#1.				
Date	0-14-2015 Job No.	Betoh# (Technician Zeck Colburn		
Α	Weight of empty container	380.9	grams		
В	Sample the iron-sand mixtur	e from the discha	arge of the mixing truck or backfill		
С	Weight of container + sample	821,9	grams		
	Bulk weight of sample A - C	441.0	grams		
D	Net dry weight of sample	441.0	grams		
E	Spread the sampleout in a s	suitable container	(e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plast	ic bag			
G	Pass the magnet over the s magnetic fraction in new co		the magetic (granular ZVI) fraction. Place		
н	Continue passing the magn	et over the mater	rial until no more magnetic material is removed		
1	The magnetic fraction may at least 3 more times.	contain some nor	n-magnetic (sand) particles. Repeat Steps E to H		
J	Weight of iron fraction	295.0	grams = 440.6		
	Weight of sand fraction	145.6	grams		
к	Dry Iron Net Weight % J ÷ D x 100%	66.89	%		



Date	e 10-14-2015 Job No.	Batch#2 Tru	Technician Zach Colburn
Α	Weight of empty container	370.0	grams
В	Sample the iron-sand mixture	e from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	870.0	grams
	Bulk weight of sample A - C	500. 0	grams
D	Net dry weight of sample	500.0	grams
E	Spread the sampleout in a s	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag	
G	Pass the magnet over the sa magnetic fraction in new cor		the magetic (granular ZVI) fraction. Place
н	Continue passing the magne	et over the mater	ial until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some nor	n-magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	254.6	grams 499.7
	Weight of sand fraction	245.1	grams
к	Dry Iron Net Weight % J ÷ D x 100%	50.7	%



Date	10/14/2015 Job No.	Batch #2 Truck #	Technician
А	Weight of empty container	381.0	grams
В	Sample the iron-sand mixture	e from the discha	ge of the mixing truck or backfill
С	Weight of container + sample	811.9	grams
	Bulk weight of sample A - C	430.9	grams
D	Net dry weight of sample	430.9	grams
Е	Spread the sampleout in a si	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	c bag	
G	Pass the magnet over the sa magnetic fraction in new cor		the magetic (granular ZVI) fraction. Place
н	Continue passing the magne	et over the materi	al until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non	-magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	269.7	grams 430.6
	Weight of sand fraction	160.9	grams
к	Dry Iron Net Weight % J ÷ D x 100%	62.58	%



Date	10-14-2015 Job No.	Batdut 3	Technician
Α	Weight of empty container	369.7	grams
В	Sample the iron-sand mixture	e from the dischar	ge of the mixing truck or backfill
С	Weight of container + sample	905.8	grams
	Bulk weight of sample A - C	536.1	grams
D	Net dry weight of sample	53 6.1	grams
E	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag	
G	Pass the magnet over the sa magnetic fraction in new cor		he magetic (granular ZVI) fraction. Place
н	Continue passing the magne	et over the materia	al until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	306.0	grams
	Weight of sand fraction	229.7	grams
K	Dry Iron Net Weight % J ÷ D x 100%	57.0	%



Date	10/14/2015 Job No.	batch \$3 Test 2	Technician		
Α	Weight of empty container	381.1	grams		
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill		
С	Weight of container + sample	829	grams		
	Bulk weight of sample A - C	447.9	grams		
D	Net dry weight of sample	447.9	grams		
E	Spread the sampleout in a suitable container (e.g. disposable aluminum cookie sheet)				
F	Cover the magnet in a plastic	c bag			
G	Pass the magnet over the sa magnetic fraction in new cor		the magetic (granular ZVI) fraction. Place		
н	Continue passing the magne	et over the materi	al until no more magnetic material is removed		
1	The magnetic fraction may of at least 3 more times.	contain some non	-magnetic (sand) particles. Repeat Steps E to H		
J	Weight of iron fraction	274.3	grams = 447.2		
	Weight of sand fraction	172.9	grams		
к	Dry Iron Net Weight % J ÷ D x 100%	61.24	%		



ate	10-14-15 Job No.	Patch #4 Truck	Technician Zach Calburn
Α	Weight of empty container	381.0	grams
В	Sample the iron-sand mixture	e from the dischar	ge of the mixing truck or backfill
С	Weight of container + sample	1021.4	grams
	Bulk weight of sample A - C	640.4	grams
D	Net dry weight of sample	640.4	grams
E	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag	
G	Pass the magnet over the sa magnetic fraction in new cor		he magetic (granular ZVI) fraction. Place
Н	Continue passing the magne	et over the materia	al until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	348.2	grams
	Weight of sand fraction	291.6	grams
к	Dry Iron Net Weight % J ÷ D x 100%	54.3	%



Date	10/14/2015 Job No.	Botch #4 Test 2	Technician Zach Colburn		
Α	Weight of empty container	381.0	grams		
В	Sample the iron-sand mixture	e from the dischar	rge of the mixing truck or backfill		
С	Weight of container + sample	8125	grams		
	Bulk weight of sample A - C	431.5	grams		
D	Net dry weight of sample		grams		
Е	Spread the sampleout in a si	uitable container	(e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plastic	c bag			
G	Pass the magnet over the sample to remove the magetic (granular ZVI) fraction. Place magnetic fraction in new container				
н	Continue passing the magne	et over the materi	al until no more magnetic material is removed		
1	The magnetic fraction may of at least 3 more times.	contain some non	-magnetic (sand) particles. Repeat Steps E to H		
J	Weight of iron fraction	244.2	grams		
	Weight of sand fraction	186.4	grams		
к	Dry Iron Net Weight % J ÷ D x 100%	5 6.5	%		



Date	10-14-2015 Job No. B	Truck:	Technician Zach Colbust
Α	Weight of empty container	38).0	grams
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill
С	Weight of container + sample	837	grams
	Bulk weight of sample A - C	H560	grams
D	Net dry weight of sample	456.0	grams
E	Spread the sampleout in a su	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	c bag	
G	Pass the magnet over the sa magnetic fraction in new con		the magetic (granular ZVI) fraction. Place
н	Continue passing the magne	et over the materi	al until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non	-magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	268.1	grams
	Weight of sand fraction	186.8	grams
к	Dry Iron Net Weight % J ÷ D x 100%	58.7	%



Date	e 10-14-2015 Job No.	Batch 4 Test 4	Technician Z roh Colburn
Α	Weight of empty container	370.1	grams
В	Sample the iron-sand mixture	e from the discharg	ge of the mixing truck or backfill
С	Weight of container + sample	954.9	grams
	Bulk weight of sample A - C	584.8	grams
D	Net dry weight of sample	584.8	grams
E	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag	
G	Pass the magnet over the sa magnetic fraction in new cor		ne magetic (granular ZVI) fraction. Place
н	Continue passing the magne	et over the materia	Il until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	440.6	grams
	Weight of sand fraction	143,9	grams
к	Dry Iron Net Weight % J ÷ D x 100%	75.34	%



Date	e 10-14-2015 Job No.	Trick#1 Betch #5	Technician Zach	Colburn
Α	Weight of empty container	369.7	grams	
В	Sample the iron-sand mixtur	e from the dischar	ge of the mixing truck or ba	ackfill
С	Weight of container + sample	932	grams	
	Bulk weight of sample A - C	562.3	grams	
D	Net dry weight of sample	562.3	grams	
Ε	Spread the sampleout in a s	uitable container ((e.g. disposable aluminum o	cookie sheet)
F	Cover the magnet in a plast	ic bag		
G	Pass the magnet over the samagnetic fraction in new con		he magetic (granular ZVI) f	raction. Place
н	Continue passing the magn	et over the materia	al until no more magnetic m	aterial is removed
1	The magnetic fraction may at least 3 more times.	contain some non-	-magnetic (sand) particles.	Repeat Steps E to H
J	Weight of iron fraction	361.3	grams - 5 6 1 9	
	Weight of sand fraction	200.6	grams	
К	Dry Iron Net Weight % J ÷ D x 100%	64.2	%	



Date	10-14-245 Job No.	Truck#2 Batch#6		ian Zach Colburn
Α	Weight of empty container	380.9	grams	
В	Sample the iron-sand mixture	e from the discha	rge of the r	nixing truck or backfill
С	Weight of container + sample	922.4	grams	
	Bulk weight of sample A - C	541.5	grams	
D	Net dry weight of sample	541.5	grams	
E	Spread the sampleout in a si	uitable container	(e.g. dispo	sable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag		
G	Pass the magnet over the sa magnetic fraction in new cor		the magetion	granular ZVI) fraction. Place
н	Continue passing the magne	et over the materi	ial until no r	more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non	-magnetic	(sand) particles. Repeat Steps E to H
J	Weight of iron fraction	340.7	grams	540.9
	Weight of sand fraction	200.2	grams	
к	Dry Iron Net Weight % J ÷ D x 100%	62.91	%	

ZVI PRB PROJECT DUBLIN APARTMENTS 7544 DUBLIN BLVD, DUBLIN, CA

10/15/15

MAGNUS

ZVI Batch Mixing Log

100	amis		-		Havri	4
Batch No.	Time	Truck No.	% Iron by Weight	Pass?	# of Iron Bags Used	# of Sand Bags Used
01	8:27	70	-1	9	12016	7393
02	9:10	0	F		12016	7429
03	10:00	1 9	4		12016	7398
04	10:49	11		10 1	11766	7232
05	12,00				12016	7302
06	1:35		0		12016	7434
07		11	P	Eg.	12016 =	7348
08	2:57		1 - 5	V	12016	7398
09	T.			100	12016	7398
10		V .		9	12016	7398
11	447		F.		12016	7398
12	5:14				12016	7403
13		*	1	17	W 3	
14		1	P	4	多糖	1
15		i i	4	11/		
16			14	1		9
17	4		int in	8		5 & '
18	- (-	11/	#	4 4	. 0	W L
19		1	4	d	1 1	1
20		1		1111	0 1/	4 14

Dat	te 0-15-2015 Job No.	In trench 10	-85 Techr	nician Zech Co	elbur
А	Weight of empty container	559.3	grams		
В	Sample the iron-sand mixtur	re from the discha	rge of the	mixing truck or bac	kfill
С	Weight of container + sample	1275.5	grams		
	Bulk weight of sample A - C	716.2	grams		
D	Net dry weight of sample	540.4	grams		
E	Spread the sampleout in a s	uitable container (e.g. dispo	osable aluminum co	okie sheet)
F	Cover the magnet in a plasti	c bag			
G	Pass the magnet over the sa magnetic fraction in new cor	ample to remove to ntainer	he maget	c (granular ZVI) frac	ction. Place
н	Continue passing the magne	et over the materia	al until no	more magnetic mate	erial is removed
1	The magnetic fraction may of at least 3 more times.	contain some non-	magnetic	(sand) particles. Re	epeat Steps E to H
J	Weight of iron fraction	391.9	grams	-540	
	Weight of sand fraction	148.1	grams	_ 0 10	
к	Dry Iron Net Weight % J ÷ D x 100%	72.5	%		3.



Dat	te 10-15-2015 Job No.	Batch#1 Truck	Technician Zach Collym	
A	Weight of empty container	380.9	grams	
В	Sample the iron-sand mixtur	e from the dischar	rge of the mixing truck or backfill	
С	Weight of container + sample	929.6	grams	
	Bulk weight of sample A - C	548.7	grams	
D	Net dry weight of sample		grams	
Ε	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie sheet)	
F	Cover the magnet in a plasti	c bag		
G	Pass the magnet over the sa magnetic fraction in new con	ample to remove thatainer	ne magetic (granular ZVI) fraction. Place	
н	Continue passing the magne	et over the materia	al until no more magnetic material is removed	
I,	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.			
J	Weight of iron fraction	351,5	grams - ELIC 1	
	Weight of sand fraction	196.8	=548.3 grams	
K	Dry Iron Net Weight % J ÷ D x 100%	64.0	%	

Date	10-15-2015	Joh No	Batch = 2 Truck = Technician
	10 200	OOD IVO.	DETON * C II VON " TECHNICIAN

A Weight of empty container

381.0

grams

- B Sample the iron-sand mixture from the discharge of the mixing truck or backfill
- C Weight of container + sample

981,0

grams

Bulk weight of sample A - C 600.0

grams

D Net dry weight of sample

600.0

grams

- E Spread the sampleout in a suitable container (e.g. disposable aluminum cookie sheet)
- F Cover the magnet in a plastic bag
- G Pass the magnet over the sample to remove the magetic (granular ZVI) fraction. Place magnetic fraction in new container
- H Continue passing the magnet over the material until no more magnetic material is removed
- The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.
- J Weight of iron fraction

435.3

grams

= 599.6

Weight of sand fraction

164.3

grams

K Dry Iron Net Weight % J ÷ D x 100% 12.55

%



Da	te 10/15 /2015 Job No.	Batch # 3 Truc	k# Technician Trevor Newell		
А	Weight of empty container	381.0	grams		
В	Sample the iron-sand mixtur	e from the discha	arge of the mixing truck or backfill		
С	Weight of container + sample	965.6	grams		
	Bulk weight of sample A - C	584.6	grams		
D	Net dry weight of sample	584.6	grams		
Е	Spread the sampleout in a si	uitable container	(e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plastic	c bag			
G	Pass the magnet over the sa magnetic fraction in new con	imple to remove tainer	the magetic (granular ZVI) fraction. Place		
Н	Continue passing the magne	et over the materi	al until no more magnetic material is removed		
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.				
J	Weight of iron fraction	347.7	grams		
	Weight of sand fraction	235.1	grams		
K	Dry Iron Net Weight % J ÷ D x 100%	59.4	%		



Dat	te 0-15-2015 Job No.	Betch #3 Truck #	1 Technician Zoch Calbun
А	Weight of empty container	381.0	grams
В	Sample the iron-sand mixtur	e from the discha	rge of the mixing truck or backfill
С	Weight of container + sample	875, 6	grams
	Bulk weight of sample A - C	494.8	grams
D	Net dry weight of sample	494.6	grams
E	Spread the sampleout in a se	uitable container ((e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	c bag	
G	Pass the magnet over the sa magnetic fraction in new con	imple to remove that itainer	he magetic (granular ZVI) fraction. Place
Н	Continue passing the magne	et over the materia	al until no more magnetic material is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	301.3	grams _ 494
	Weight of sand fraction	1927	grams
K	Dry Iron Net Weight % J ÷ D x 100%	60.9	%

Da	te 1//-15-2015 Job No.	BAtch#4 Truck \$	2 Technician Zach Colburn
Α	Weight of empty container	381.0	grams
В	Sample the iron-sand mixture	re from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	1004	grams
	Bulk weight of sample A - C	623,0	grams
D	Net dry weight of sample	623.0	grams
E	Spread the sampleout in a s	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plasti	c bag	
G	Pass the magnet over the sa magnetic fraction in new cor	ample to remove to	the magetic (granular ZVI) fraction. Place
Н	Continue passing the magne	et over the materi	al until no more magnetic material is removed
1	The magnetic fraction may of at least 3 more times.	contain some non-	-magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	400.1	grams $= \{22, 7\}$
	Weight of sand fraction	2226	grams
K	Dry Iron Net Weight % J ÷ D x 100%	64.2	%



Da	Date 10-15-2015 Job No. Batch#5 Truck Technician Zach Callur					
Α	Weight of empty container	381.0	grams			
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill			
С	Weight of container + sample	826.8	grams			
	Bulk weight of sample A - C	445.8	grams			
D	Net dry weight of sample	445,8	grams			
Е	Spread the sampleout in a su	uitable container (e.g. disposable aluminum cookie sheet)			
F	Cover the magnet in a plastic	c bag				
G	Pass the magnet over the sa magnetic fraction in new con	mple to remove to tainer	ne magetic (granular ZVI) fraction. Place			
Н	Continue passing the magne	t over the materia	al until no more magnetic material is removed			
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.					
J	Weight of iron fraction	318.3	grams			
	Weight of sand fraction	127.3	grams			
K	Dry Iron Net Weight % J ÷ D x 100%	71.3	%			



Da	te 0-15-2015 Job No.	Batch # 6 Truck	CHZTechnician Trevor Newell
А	Weight of empty container	370.0	grams
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill
С	Weight of container + sample	792.0	grams
	Bulk weight of sample A - C	422 0	grams
D	Net dry weight of sample	422.0	grams
Е	Spread the sampleout in a su	uitable container ((e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	; bag	
G	Pass the magnet over the sa magnetic fraction in new conf	mple to remove thainer	he magetic (granular ZVI) fraction. Place
H	Continue passing the magne	t over the materia	al until no more magnetic material is removed
ı	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	255.7	grams = 421.3
	Weight of sand fraction	165.6	grams
K	Dry Iron Net Weight % J÷Dx100%	60.5	%

Date (0-15-2015	Job No. Batch # 12 Truck + Technician Trever Newell

A Weight of empty container

3698

grams

- B Sample the iron-sand mixture from the discharge of the mixing truck or backfill
- C Weight of container + sample

869.2

grams

Bulk weight of sample A - C

499.4

grams

D Net dry weight of sample

499.4

grams

- E Spread the sampleout in a suitable container (e.g. disposable aluminum cookie sheet)
- F Cover the magnet in a plastic bag
- G Pass the magnet over the sample to remove the magetic (granular ZVI) fraction. Place magnetic fraction in new container
- H Continue passing the magnet over the material until no more magnetic material is removed
- The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.
- J Weight of iron fraction

317.8

grams

- 497.4

Weight of sand fraction

179.6

grams

K Dry Iron Net Weight % J ÷ D x 100% 63.6

%

ZVI PRB PROJECT DUBLIN APARTMENTS 7544 DUBLIN BLVD, DUBLIN, CA

MAGNUS

ZVI Batch Mixing Log

Date 10-16-15 Job No. Technician Harris

Batch No.	Time	Truck No.	% Iron by Weight	Pass?	# of Iron Bags Used	# of Sand Bags Used
01	8 200	1	,		12016	7403
02	9,30	2	. 1	Val	12016	7399
03	11:15	1	3		12016	7403
04	1253	1			12016	7399
05					12016	7394
06	OF ST		Ī		12016	7403
07					12016	7403
08	4:30		4	1	12016	7403
09	STW			6 FILE	12016	7399
10				į.		4
11						1
12		* 1	1			
13				1 192	1	- 8
14			Ī	-1		
15						-
16				9		
17				1	1	
18			7			
19		1	M.		1	7.3
20		-			E	



	te 10/16[15 Job No.	Piling	JUK Technician Traver Newell
Da	te 10/16/15 Job No.	Batch# 1 71	JUE Technician (1700 Newel)
Α	Weight of empty container	370.0	grams
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill
С	Weight of container + sample	891.7	grams
	Bulk weight of sample A - C	521.7	grams
D	Net dry weight of sample	521.7	grams
E	Spread the sampleout in a su	uitable container ((e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	bag	
G	Pass the magnet over the sar magnetic fraction in new cont	mple to remove ti tainer	ne magetic (granular ZVI) fraction. Place
H	Continue passing the magnet	t over the materia	al until no more magnetic material is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	320.3	grams - <20.8
	Weight of sand fraction	200.5	grams
K	Dry Iron Net Weight % J ÷ D x 100%	4.10	%



Da	te 10-16-15 Job No.	Batch #2 Tru	Technician Trevor Newell			
A	Weight of empty container	370.0	grams			
В	Sample the iron-sand mixture	e from the dischar	ge of the mixing truck or backfill			
С	Weight of container + sample	600.1	grams			
	Bulk weight of sample A - C	430.1	grams			
D	Net dry weight of sample	430.1	grams			
E	Spread the sampleout in a su	uitable container (e	e.g. disposable aluminum cookie sheet)			
F	Cover the magnet in a plastic	c bag				
G	Pass the magnet over the sa magnetic fraction in new con	mple to remove th tainer	ne magetic (granular ZVI) fraction. Place			
Н	Continue passing the magne	t over the materia	until no more magnetic material is removed			
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.					
J	Weight of iron fraction	287.6	grams 429.7 9			
	Weight of sand fraction	142.1	grams			
K	Dry Iron Net Weight % J ÷ D x 100%	66:9	%			

_	Facque		
Da	te (0/16/15 Job No. 1	Batch = 3 Truck:	# Technician Trevor Mewell
Α	Weight of empty container	380.9	grams
В	Sample the iron-sand mixture	e from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	790.8	grams
	Bulk weight of sample A - C	409.9	grams
D	Net dry weight of sample	409.9	grams
Е	Spread the sampleout in a su	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	bag	
G	Pass the magnet over the sammagnetic fraction in new cont	mple to remove t tainer	he magetic (granular ZVI) fraction. Place
Н	Continue passing the magnet	t over the materia	al until no more magnetic material is removed
i	The magnetic fraction may coat least 3 more times.	ontain some non-	-magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	253.9	grams
	Weight of sand fraction	155.3	= 409.2 grams
K	Dry Iron Net Weight % J ÷ D x 100%	61.9	%

Weight of sand fraction

Dry Iron Net Weight %

J ÷ D x 100%

K

	Pacyce			
Dat	te 10-16-15 Job No.	Batch # 4 Truck	⊄ Technici	an Trevor Newell
Α	Weight of empty container	381.0	grams	
В	Sample the iron-sand mixture	e from the discha	rge of the mi	ixing truck or backfill
С	Weight of container + sample	819.6	grams	
	Bulk weight of sample A - C	438.6	grams	
D	Net dry weight of sample	438.6	grams	
E	Spread the sampleout in a su	uitable container	(e.g. disposa	ble aluminum cookie sheet)
F	Cover the magnet in a plastic	; bag		
G	Pass the magnet over the sar magnetic fraction in new cont	mple to remove thatiner	he magetic (ç	granular ZVI) fraction. Place
Н	Continue passing the magnet	over the materia	al until no mo	re magnetic material is removed
1	The magnetic fraction may co at least 3 more times.	ntain some non-	magnetic (sa	and) particles. Repeat Steps E to H
J	Weight of iron fraction	274	grams	18

grams

%

438.49



Da	ate 10-16-15 Job No.	Butch #5 Truck	* Technician Trevor	Newell
A	Weight of empty container	370.0	grams	
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or b	ackfill
С	Weight of container + sample		grams	
	Bulk weight of sample A - C	518.0	grams	
D	Net dry weight of sample	518.0	grams	
E	Spread the sampleout in a su	uitable container	e.g. disposable aluminum	cookie sheet)
F	Cover the magnet in a plastic	bag		
G	Pass the magnet over the sa magnetic fraction in new conf	mple to remove t ainer	ne magetic (granular ZVI) fi	raction. Place
Н	Continue passing the magnet	over the materia	I until no more magnetic m	aterial is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles.	Repeat Steps E to H
J	Weight of iron fraction	309.3	grams	
	Weight of sand fraction		grams	
K	Dry Iron Net Weight % J ÷ D x 100%		%	

Da	te 10-16-15 Job No. 1	Batch #5 Truck	TeSH#Z # Technician Tre	vor Newell
Α	Weight of empty container	369.9	grams	
В	Sample the iron-sand mixture	e from the dischar	rge of the mixing tru	ck or backfill
С	Weight of container + sample	864.9	grams	
	Bulk weight of sample A - C	495.0	grams	
D	Net dry weight of sample	495.0	grams	
E	Spread the sampleout in a su	uitable container (e.g. disposable alun	ninum cookie sheet)
F	Cover the magnet in a plastic	bag		
G	Pass the magnet over the sar magnetic fraction in new cont	mple to remove th tainer	ne magetic (granular	ZVI) fraction. Place
Н	Continue passing the magnet	t over the materia	l until no more magr	netic material is removed
1	The magnetic fraction may co at least 3 more times.	ontain some non-r	nagnetic (sand) par	ticles. Repeat Steps E to H
J	Weight of iron fraction	299.0	grams	
	Weight of sand fraction	195.4	grams	1.4
K	Dry Iron Net Weight % J ÷ D x 100%	60.4	%	



Date 10-16-15 Job No. Batch # 6 Truck Technician Trevor Newell			
А	Weight of empty container	369.4	grams
В	Sample the iron-sand mixture from the discharge of the mixing truck or backfill		
С	Weight of container + sample	906.9	grams
	Bulk weight of sample A - C	537.0	grams
D	Net dry weight of sample	531.0	grams
E	Spread the sampleout in a suitable container (e.g. disposable aluminum cookie sheet)		
F	Cover the magnet in a plastic bag		
G	Pass the magnet over the sample to remove the magetic (granular ZVI) fraction. Place magnetic fraction in new container		
Н	Continue passing the magnet over the material until no more magnetic material is removed		
1	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.		
J	Weight of iron fraction	368.1	grams
	Weight of sand fraction	168.4	536. 5 g
K	Dry Iron Net Weight % J + D x 100%	68.5	%



Da	ate 10-16-15 Job No. 1	Baten #6 Truc	K#Z Frs+#1 Technician Trevor Newell
A	Weight of empty container	381.0	grams
В	Sample the iron-sand mixture	e from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	893,5	grams
	Bulk weight of sample A - C	512 5	grams
D	Net dry weight of sample	512.5	grams
E	Spread the sampleout in a su	itable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	bag	
G	Pass the magnet over the san magnetic fraction in new conta	nple to remove t ainer	he magetic (granular ZVI) fraction. Place
Н	Continue passing the magnet	over the materia	al until no more magnetic material is removed
1	The magnetic fraction may co at least 3 more times.	ntain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	299.6	grams
	Weight of sand fraction		grams
K	Dry Iron Net Weight % J ÷ D x 100%	58.6	%



Magnetic Separation Testing Form

Da	10:35 A ate 10/16/15 Job No.	AM Trench Sample	Technician Trevor Newell
A	Weight of empty container	369.8	grams
В	Sample the iron-sand mixture	e from the dische	arge of the mixing truck or backfill
С	Weight of container + sample	904.3	grams
	Bulk weight of sample A - C	534.5	grams
D	Net dry weight of sample	534.5	grams
E	Spread the sampleout in a su		(e.g. disposable aluminum cookie sheet)
G	Pass the magnet over the san magnetic fraction in new conta	nple to remove to ainer	he magetic (granular ZVI) fraction. Place
Н	Continue passing the magnet	over the materia	al until no more magnetic material is removed
ì	The magnetic fraction may coat least 3 more times.	ntain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	364.0	grams
	Weight of sand fraction	170.1	= 534,1 grams
K	Dry Iron Net Weight % J ÷ D x 100%	68.1	%

Magnetic Separation Testing Form

Da		1425 Trench sample	Technician Tryor Newell
А	Weight of empty container	369,9	grams Wet Net: 775.0
В	Sample the iron-sand mixtur	e from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	936.6	grams
	Bulk weight of sample A - C	566.7	grams
D	Net dry weight of sample	566.7	grams
E	Spread the sampleout in a si	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	c bag	9.F
G	Pass the magnet over the sa magnetic fraction in new con	mple to remove t tainer	he magetic (granular ZVI) fraction. Place
Н	Continue passing the magne	t over the materia	al until no more magnetic material is removed
ı	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	421.4	grams
	Weight of sand fraction	145,2	566 6 grams
K	Dry Iron Net Weight % J ÷ D x 100%	74.4	%



Da		555 Trench Sample	2 Technician Trevor Newell
А	Weight of empty container	369.8	grams Wet Net: 750.8
В	Sample the iron-sand mixture	e from the discha	arge of the mixing truck or backfill
С	Weight of container + sample	862.2	grams
	Bulk weight of sample A - C	492.4	grams
D	Net dry weight of sample	492.4	grams
E	Spread the sampleout in a su	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	bag	
G	Pass the magnet over the sa magnetic fraction in new con-	mple to remove t tainer	he magetic (granular ZVI) fraction. Place
н	Continue passing the magne	t over the materia	al until no more magnetic material is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	-magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	3265	grams = 491.9 Total
	Weight of sand fraction	165.4	grams
к	Dry Iron Net Weight % J + D x 100%	66.3	%

Dublin Sat. Oct. 17, 2015 PRB Bock-Fill Batching

	9	
Botch No Time	I Iron (165)	Sand (165)
+2345678910	12016 12016 12016 12016 12016 12016 3004	7429 7409 7399 7429 7404 7398 7398 1020
	1	



Date 10/17/15 Job No. In trench Sample Technician Trevor Newell Weight of Pan Wt wet: 559.4

- A Weight of empty container
- 381.0

grams

- B Sample the iron-sand mixture from the discharge of the mixing truck or backfill
- C Weight of container + sample

946, 4 grams

565.4 grams

D Net dry weight of sample

Bulk weight of sample

A-C

565.4 grams

- E Spread the sampleout in a suitable container (e.g. disposable aluminum cookie sheet)
- F Cover the magnet in a plastic bag
- G Pass the magnet over the sample to remove the magetic (granular ZVI) fraction. Place magnetic fraction in new container
- H Continue passing the magnet over the material until no more magnetic material is removed
- The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.
- J Weight of iron fraction

410

grams

= 565.4

Weight of sand fraction

155.4

grams

K Dry Iron Net Weight % J ÷ D x 100%

72.5

%



Dat	e 10/17/15 Job No.	1545 Trunch Sample	, Technician Trevor Neuen
Α	Weight of empty container	370.1	grams Pan 559.6 Wet net 765.0
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or backfill
С	Weight of container + sample	977.1	grams
	Bulk weight of sample A - C	607	grams
D	Net dry weight of sample	607	grams
E	Spread the sampleout in a su	uitable container	(e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	; bag	
G	Pass the magnet over the samagnetic fraction in new conf	mple to remove t tainer	he magetic (granular ZVI) fraction. Place
Н	Continue passing the magnet	t over the materia	al until no more magnetic material is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	457.1	grams
	Weight of sand fraction	148.9	grams
K	Dry Iron Net Weight % J ÷ D x 100%	75.4	%



Date	e 0 - 17 - 15 Job No.	Batch#1 Trucks	# Technician Trever New	~ eq1
Α	Weight of empty container	381.0	grams	
В	Sample the iron-sand mixture	e from the discha	rge of the mixing truck or bac	ekfill
С	Weight of container + sample	888	grams	
	Bulk weight of sample A - C	5070	grams	
D	Net dry weight of sample	507.0	grams	
E	Spread the sampleout in a su	uitable container	(e.g. disposable aluminum co	ookie sheet)
F	Cover the magnet in a plastic	c bag		
G	Pass the magnet over the sa magnetic fraction in new con		he magetic (granular ZVI) fra	action. Place
Н	Continue passing the magne	t over the materia	al until no more magnetic ma	terial is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-	-magnetic (sand) particles. F	Repeat Steps E to H
J	Weight of iron fraction	339.4	grams	
	Weight of sand fraction	166.9	= 506.3 g grams	2
к	Dry Iron Net Weight % J ÷ D x 100%	66,9		-



Magnetic Separation Testing Form

Da	te 10/17/15 Job No.	Batch #2 Track#	Technician Treupr	Never
Α	Weight of empty container	381 .1	grams	
В	Sample the iron-sand mixtur	e from the dischar	ge of the mixing truck or	backfill
С	Weight of container + sample	901.2	grams	
	Bulk weight of sample A - C	520.1	grams	
D	Net dry weight of sample	520 1	grams	
E	Spread the sampleout in a s	uitable container (e.g. disposable aluminum	cookie sheet)
F	Cover the magnet in a plastic	c bag		
G	Pass the magnet over the sa magnetic fraction in new con	ample to remove thatainer	ne magetic (granular ZVI)	fraction. Place
Н	Continue passing the magne	et over the materia	l until no more magnetic r	naterial is removed
I I	The magnetic fraction may cat least 3 more times.	ontain some non-r	magnetic (sand) particles.	Repeat Steps E to H
J	Weight of iron fraction	322 .9	grams	
	Weight of sand fraction	196.9	= 519.8 grams	9
K	Dry Iron Net Weight % J ÷ D x 100%	62.1	%	



Dat	te (0-17-15 Job No. 1	Batch # 3 Truck	ظڑ Techni o	cian Travor Newell
Α	Weight of empty container	381.0	grams	
В	Sample the iron-sand mixture	from the dischar	ge of the r	nixing truck or backfill
С	Weight of container + sample	917.5	grams	
	Bulk weight of sample A - C	536 5	grams	
D	Net dry weight of sample	536.5	grams	
Ε	Spread the sampleout in a su	uitable container (e.g. dispos	sable aluminum cookie sheet)
F	Cover the magnet in a plastic	: bag		
G	Pass the magnet over the sar magnetic fraction in new cont		ne magetic	(granular ZVI) fraction. Place
Н	Continue passing the magnet	t over the materia	l until no m	nore magnetic material is removed
1	The magnetic fraction may coat least 3 more times.	ontain some non-r	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	360.5	grams	- 535.5
	Weight of sand fraction	175.0	grams	
K	Dry Iron Net Weight % J + D x 100%	67.2	%	~



Da	te 10/17/K Job No. F	Batch # 4 Truc	Technician Trevor Newell
Α	Weight of empty container	380.9	grams
В	Sample the iron-sand mixture	from the dischar	ge of the mixing truck or backfill
С	Weight of container + sample	900.9	grams
	Bulk weight of sample A - C	520.0	grams
D	Net dry weight of sample	570.0	grams
Ε	Spread the sampleout in a su	itable container (e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	bag	
G	Pass the magnet over the sar magnetic fraction in new cont		ne magetic (granular ZVI) fraction. Place
н	Continue passing the magnet	over the materia	I until no more magnetic material is removed
ı	The magnetic fraction may co at least 3 more times.	ntain some non-i	magnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	305.7	grams
	Weight of sand fraction	214.1	grams
K	Dry Iron Net Weight % J ÷ D x 100%	58.8	%



Da	Date 10/17/15 Job No. Butch # 4 Truck# Technician Trevor Newell					
A	Weight of empty container	369.4	grams			
В	Sample the iron-sand mixture	re from the dischar	rge of the mixing truck or backfill			
С	Weight of container + sample	935.8	grams			
	Bulk weight of sample A - C	565.9	grams			
D	Net dry weight of sample	569,9	grams			
E	Spread the sampleout in a s	uitable container (e.g. disposable aluminum cookie she	eet)		
F	Cover the magnet in a plasti	c bag				
G	Pass the magnet over the sa magnetic fraction in new cor	ample to remove th ntainer	ne magetic (granular ZVI) fraction. P	lace		
Н	Continue passing the magne	et over the materia	l until no more magnetic material is r	emoved		
Ĺ	The magnetic fraction may contain some non-magnetic (sand) particles. Repeat Steps E to H at least 3 more times.					
J	Weight of iron fraction	343.0	grams			
	Weight of sand fraction	172.4	grams	8		
K	Dry Iron Net Weight % J ÷ D x 100%	69.4	%	86		



Da	te 10/17/15 Job No. 1	Beutch #\$ Truck	CTTechnician Trevor New 4
A	Weight of empty container	364.8	grams
В	Sample the iron-sand mixture	e from the dischar	ge of the mixing truck or backfill
С	Weight of container + sample	941,3	grams
	Bulk weight of sample A - C	571.5	grams
D	Net dry weight of sample	571.5	grams
E	Spread the sampleout in a su	uitable container (e	e.g. disposable aluminum cookie sheet)
F	Cover the magnet in a plastic	bag	
G	Pass the magnet over the sar magnetic fraction in new cont	mple to remove the	e magetic (granular ZVI) fraction. Place
Н	Continue passing the magnet	t over the material	until no more magnetic material is removed
1	The magnetic fraction may co at least 3 more times.	ontain some non-n	nagnetic (sand) particles. Repeat Steps E to H
J	Weight of iron fraction	388.4	grams
	Weight of sand fraction	182.2	5.70.8 grams
K	Dry Iron Net Weight % J ÷ D x 100%	67.9]%



Dat	te 10/17/15 Job No.	Butch # 6 Truck Technician Trever Newell						
Α	Weight of empty container	381.0 grams						
В	Sample the iron-sand mixtu	re from the discharge of the mixing truck or backfill						
С	Weight of container + sample	927,5 grams						
	Bulk weight of sample A - C	5465 grams						
D	Net dry weight of sample	546.5 grams						
Ε	Spread the sampleout in a suitable container (e.g. disposable aluminum cookie sheet)							
F	Cover the magnet in a plastic bag							
G	Pass the magnet over the sample to remove the magetic (granular ZVI) fraction. Place magnetic fraction in new container							
Н	Continue passing the magnet over the material until no more magnetic material is removed							
1	The magnetic fraction may of at least 3 more times.	contain some non-magnetic (sand) particles. Repeat Steps E to H						
J	Weight of iron fraction	384.Z grams = 546.0						
	Weight of sand fraction	161.8 grams						
K	Dry Iron Net Weight % J ÷ D x 100%	70.3 %						



ATTACHMENT K

CDF Unconfined Compressive Strength Test Results

APPLIED MATERIALS & ENGINEERING, INC.
980 41st Street Tel: (510) 420-8190

FAX: (510) 420-8186 e-mail: info@appmateng.com

COMPRESSION TEST REPORT

Project Number: 115822C Report Date: 11/04/15

Project Name: 14-723 Type of Sample: CLSM Cylinder D4832

7544 Dublin Boulevard Size of Sample: 6"x12" Cylinder

Dublin, CA Specimens Made By: Client

Date Sampled: 10/19/15
ral Time Sampled: 12:37 PM

Client Name: Rockridge Geotechnical Time Sampled: 12:37 PM
Date Received: 10/27/15

Field Test Conditions and Results

Supplier: Ready Mix Company Slump, inch: 3 ASTM C143

Mix Number: Air Temperature OF: 74

Mix Number: .. Air Temperature, °F: 74
Ticket Number: .. Mix Temperature. °F: 73

barrier/slurry wall

Ticket Number: .. Mix Temperature, ${}^{\circ}F$: 73 ASTM C1064 Truck Number: 6th load Air Content, %: .. ASTM C231

Location in Structure: Eastern remediation Fresh Unit Weight, PCF: .. ASTM C138

Laboratory Test Results

Test Schedule Identification	11/04/15 6A	11/16/15 6B	12/14/15 6C		
Diameter, in. Length, in. Width, in. Correction Factor Area, in. ²	6.00 12.00 1.00 28.26				
Ultimate Load, lbs Ultimate Strength, psi Average Strength, psi	600 20				
Fracture Type Age Tested, days Specified Strength, psi	16	28	56		

Specimens not scheduled for testing will be discarded after 28 days

Remarks:

Cc: Logan Medeiros < Idmedeiros@rockridgegeo.com> Reviewed by

Jon Sarmiento <jbsarmiento@rockridgegeo.com>

Mohammed Faiyaz Laboratory Manager

Mohammed Faiyaz



ATTACHMENT L

Construction Photos (submitted separately)



ATTACHMENT M

Performance Warranty



Magnus Pacific, LLC 6558 Lonetree Blvd Rocklin, California 95765 Phone: 916 462 6400 www.magnuspacific.com

November 4, 2015 150019-0004

Adam Lambert
Bay West Development
2 Henry Adams Street, Suite 450
San Francisco, CA 94103
415-509-1441
Adam@baywestdevelopment.com

Subject: **Performance Warranty**

Dublin Apartments - Permeable Reactive Barrier

7544 Dublin Blvd, Dublin, CA

Dear Mr. Lambert:

Magnus Pacific is providing this performance warranty in accordance with Permeable Reactive Barrier Specification 025010, Section 1.9. Magnus Pacific shall warrant that within a 1-year period beginning November 5th 2015 and terminating November 4th 2016, that there will be no permanent decrease in the hydraulic conductivity due to the construction of the PRB (e.g. excavation methods and biopolymer slurry use) and that there will be no differential settlement.

The person of contact at Magnus Pacific for warranty related issues is:

Matthew Marks Vice President/Regional Manager

Direct: 916-462-6423 Cell: 916-233-7007



ATTACHMENT 2

Selected Construction Photographs

ATTACHMENT 2

SELECTED CONSTRUCTION PHOTOGRAPHS

Dublin Apartments Permeable Reactive Barrier Construction Completion Certification Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California



Photograph 1 Site preparation and material staging – unloading of sand



Photograph 2 Permeable reactive barrier (PRB) trench excavation



Photograph 3 Biopolymer slurry addition for trench stabilization



Trench depth quality control measurement Photograph 4



Photograph 5 Preparation of ZVI/sand mixture for placement



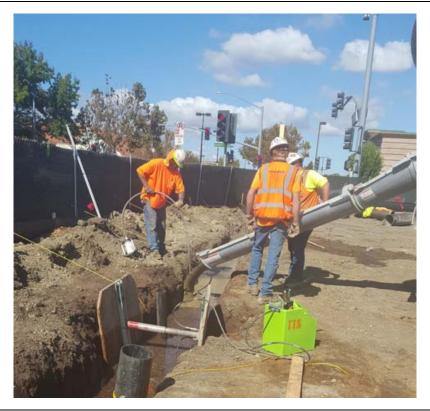
Photograph 6 Backfilling of the trench with zero valent iron/sand mixture



Photograph 7 Recirculation and addition of enzyme breaker



Photograph 8 Protective casings for future monitoring well installation



Backfilling to grade with controlled-density fill (CDF) Photograph 9



Photograph 10 PRB surface conditions following completion of PRB construction