Steven Scharf - Northrop Grumman - Phase 3 RI Soil Boring Program

From: "Stern, David" <David.Stern@arcadis-us.com>
To: "Steven Scharf" <sxscharf@gw.dec.state.ny.us>
Date: 3/30/2007 11:27 AM
Subject: Northrop Grumman - Phase 3 RI Soil Boring Program
CC: "Cofman, John" <john.cofman@ngc.com>, "San Giovanni, Carlo" <Carlo.SanGi...
Attachments: 0323_0001.pdf; Proposed Soil Boring Locations-1.pdf; AdditionalBorings.pdf

Steve:

Per the approved Phase 3 RI Work Plan, attached for your information is the integrated on-site soil boring program for D&B and ARCADIS. ARCADIS will initiate the soil borings on 4-2-07 and the program will run about 2 weeks. D&B's program will initiate the week of 4-9-07. Please see D&B's table and figure (attached) for the details regarding their program. If you have any questions, please call.

<<0323_0001.pdf>> <<Proposed Soil Boring Locations-1.pdf>> <<AdditionalBorings.pdf>>

David E. Stern, LEP
Associate Project Manager/Hydrogeologist
ARCADIS

Two Huntington Quadrangle, Suite 1S10,
Melville, NY 11747
Direct: (631) 391-5284
Fax. (631) 249-7610
Cell: (516) 369-7440
Email: dstern@arcadis-us.com

OPERABLE UNIT 3 – BETHPAGE COMMUNITY PARK
FORMER GRUMMAN SETTLING PONDS
PHASE 2A REMEDIAL INVESTIGATION
SUPPLEMENTAL SOIL BORING SCOPE OF WORK

Location	Boring	Rationale	Depth (ft.)	Soil Samples and Analyses
East of Baseball Field Infield	B-40	Previously planned boring in southern baseball field area	30	16 samples: Cr, PCBs, VOCs and PAHs
Western End of Plant 24 Access Road	B-49N, B-49E, B-49W and B-49S	Delineate impacts identified at B-49	4	12 samples: PCBs
Western Portion of Area B	B-56	Determine soil quality in western potion of area	20	11 samples: Cd, Cr, PCBs, VOCs and PAHs
Western Portion of Area A	B-57 and B-58	Delineate western extent of impacts identified in TP-1	20	10 samples: Cd, Cr, PCBs, VOCs and PAHs
Central Portion of Area A	B-59, B-60, B-61, B-62 and B-63	Delineate impacts identified in B-7/ B-7A, TP-2 and TP-2A	24	35 samples: Cd, Cr, PCBs, VOCs and PAHs
West of B-31	B-64	Delineate impacts to the west of B-31 and to the north of B-30	30	9 samples: Cd, Cr, PCBs, VOCs and PAHs
North of B-16	B-65	Investigate presence of potential basin and determine soil quality	12	6 samples: Cd, Cr, PCBs, VOCs and PAHs
Area D	B-66, B-67, B-68, B-69 and B-70	Investigate/delineate impacts identified in borings, probe holes and test pits	40	25 samples: Cd, Cr and PAHs 55 samples: PCBs and VOCs
Surrounding B-10	B-71 and B-72	Delineate impacts identified in B-10	16	18 samples: Cr, PCBs and Pb
East of B-42	B-73	Delineate impacts identified in B-42	20	7 samples: Cd, Cr, PCBs, VOCs and PAHs

CHERRY AVENUE EXTENSION

TENNIS COURTS

FORMER PADDLEBALL COURTS

BICYCLE RACKS

FORMER PLAYGROUND

FORMER COVERED PICNIC AREA

RECHARGE BASIN

FORMER SHUFFLE BOARD

FORMER BASKETBALL COURT

FORMER HORSE SHOES

FORMER OFFICE

FORMER ICE RINK

PARKING LOT

BASEBALL FIELD

POOL

PLAYGROUND

ACCESS ROAD

PLANT 24 ACCESS ROAD SITE

STEWART AVE.

AREA A

AREA B

AREA C

AREA D

FORMER FENCE

FORMER ACCESS ROAD

PIT

BCPMW-1

BCPMW-2

BCPMW-3

P-51 P-52 P-53 P-54 P-55 P-56 P-57 P-47/B-1 P-48 P-49 P-50 P-44 P-45 P-46 P-41 P-42 P-43 P-40 P-39 P-38 P-37 P-33 P-29 P-25 P-34/B-5 P-35 P-36 P-34/B-9 P-32 P-58 P-30 P-31 P-26/B-12 P-27/B-13 P-28/B-14 P-60/B-20 P-19/B-19 P-20/B-22 P-21 P-22 P-23 P-24 P-59 P-1 P-2 P-3 P-4 P-5 P-6 P-7 P-8 P-9 P-10 P-11 P-12 P-13 P-14 P-15 P-16 P-17 P-18

B-1 B-2 B-3 B-4 B-5 B-6 B-7 B-7A B-8 B-10 B-11 B-12A B-15 B-16 B-17 B-17A B-18 B-21 B-23 B-24 B-25 B-26 B-27 B-28 B-29 B-30 B-31 B-32 B-33 B-34 B-35 B-36 B-37 B-38 B-39 B-40 B-41 B-42 B-43 B-43A B-43B B-43C B-43D B-43E B-43F B-43G B-43H B-44 B-45 B-46 B-47 B-48 B-49 B-49N B-49W B-49E B-49S B-50 B-51 B-52 B-53 B-54 B-55 B-56 B-57 B-58 B-59 B-60 B-61 B-62 B-63 B-64 B-65 B-66 B-70 B-71 B-72 B-73

grass conc. bit.

LEGEND:

- HISTORICAL FEATURES
- HISTORICAL FENCE LINE
- PROPERTY LINE
- FENCE
- TEMPORARY FENCE
- PREVIOUSLY–INSTALLED SOIL PROBE
- PREVIOUSLY–INSTALLED SOIL BORING
- EXISTING MONITORING WELL

SOIL BORINGS:

- INSTALLED RI SOIL BORING LOCATION
- PROPOSED SOIL BORING LOCATION

NOTES:

1. PARK FEATURES AND STRUCTURES DIGITIZED FROM A MARCH 14, 1974 AERIAL PHOTOGRAPH.
2. THE APPROXIMATE LOCATIONS AND DIMENSIONS OF THE PARK FEATURES AND STRUCTURES HAVE BEEN FIELD VERIFIED.

0 50
SCALE IN FEET

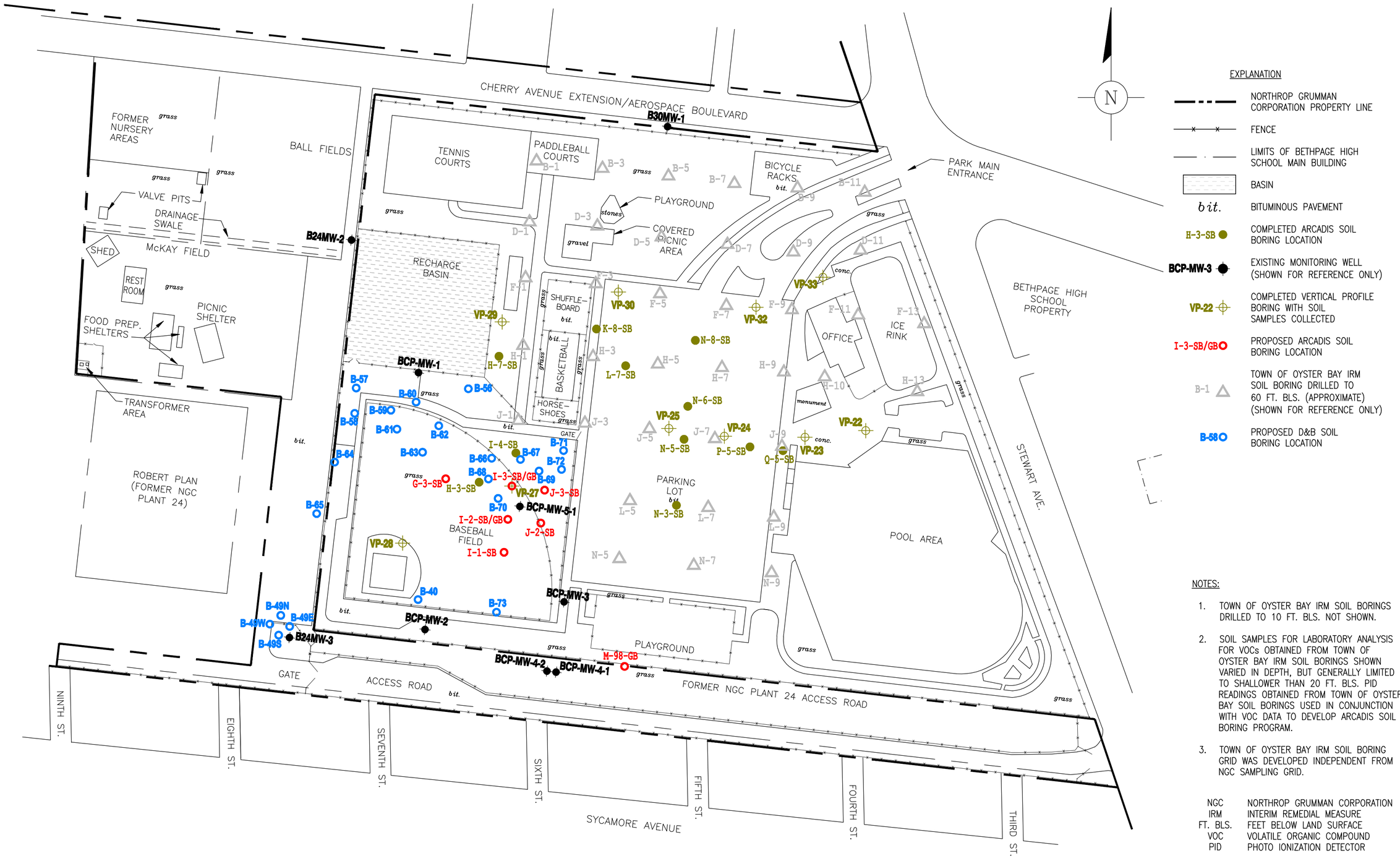
TOWN OF OYSTER BAY
BETHPAGE COMMUNITY PARK
BETHPAGE, NEW YORK

REMEDIAL INVESTIGATION PROGRAM - PHASE 2A
PROPOSED ADDITIONAL SOIL BORING LOCATIONS

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

FIGURE 1

F:\2524\2524-RI-Base-2.dwg, ADDITIONAL BORINGS, 3/27/2007 2:02:36 PM, CMefford



EXPLANATION

- NORTHROP GRUMMAN CORPORATION PROPERTY LINE
- FENCE
- LIMITS OF BETHPAGE HIGH SCHOOL MAIN BUILDING
- BASIN
- *bit.* — BITUMINOUS PAVEMENT
- H-3-SB — COMPLETED ARCADIS SOIL BORING LOCATION
- BCP-MW-3 — EXISTING MONITORING WELL (SHOWN FOR REFERENCE ONLY)
- VP-22 — COMPLETED VERTICAL PROFILE BORING WITH SOIL SAMPLES COLLECTED
- I-3-SB/GB — PROPOSED ARCADIS SOIL BORING LOCATION
- B-1 — TOWN OF OYSTER BAY IRM SOIL BORING DRILLED TO 60 FT. BLS. (APPROXIMATE) (SHOWN FOR REFERENCE ONLY)
- B-58 — PROPOSED D&B SOIL BORING LOCATION

NOTES:

1. TOWN OF OYSTER BAY IRM SOIL BORINGS DRILLED TO 10 FT. BLS. NOT SHOWN.
2. SOIL SAMPLES FOR LABORATORY ANALYSIS FOR VOCs OBTAINED FROM TOWN OF OYSTER BAY IRM SOIL BORINGS SHOWN VARIED IN DEPTH, BUT GENERALLY LIMITED TO SHALLOWER THAN 20 FT. BLS. PID READINGS OBTAINED FROM TOWN OF OYSTER BAY SOIL BORINGS USED IN CONJUNCTION WITH VOC DATA TO DEVELOP ARCADIS SOIL BORING PROGRAM.
3. TOWN OF OYSTER BAY IRM SOIL BORING GRID WAS DEVELOPED INDEPENDENT FROM NGC SAMPLING GRID.

NGC	NORTHROP GRUMMAN CORPORATION
IRM	INTERIM REMEDIAL MEASURE
FT. BLS.	FEET BELOW LAND SURFACE
VOC	VOLATILE ORGANIC COMPOUND
PID	PHOTO IONIZATION DETECTOR

PRELIMINARY DRAFT

NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CKD
0	02-15-07	PHASE 3 RI WORK PLAN	DS

SEAL

ARCADIS
Two Huntington Quadrangle
Suite 1S10
Melville, NY 11747
Tel: 631-249-7600 Fax: 631-249-7610
www.arcadis-us.com

PROJECT TITLE

OPERABLE UNIT 3
FORMER GRUMMAN
SETTLING PONDS
BETHPAGE, NEW YORK

PROJECT MANAGER: C. SAN GIOVANNI	DEPARTMENT MANAGER: M. WOLFERT
LEAD DESIGN PROF.	CHECKED BY: M. REINDL
SHEET TITLE: SITE PLAN SHOWING COMPLETED AND PROPOSED SOIL BORING LOCATIONS	TASK/PHASE NUMBER: 001SO
	DRAWN BY: A. SANCHEZ
	PROJECT NUMBER: NY001464.0807
	DRAWING NUMBER: 1

Current Plotstyle : ByColor
Layout Tab: ON-SITE
Acad Version : R17.0s (LMS Tech)
User Name : alsanchez
Date\Time : Fri, 30 Mar 2007 - 11:03am
Path\Name : G:\APROJECT\Northrop Grumman\Cadd\OU3\2007\PLAN_PLAIN VIEW\Proposed Soil Boring Locations-1.dwg

Table 1. Summary of Proposed Remedial Investigation Soil Borings, Former Grumman Settling Ponds (Operable Unit 3 - Bethpage Community Park), Bethpage, New York.

ARCADIS Boring Identification (	Associated DB Boring [1]	Nominal Borehole/ Well Diameter (inches)	Total Depth (ft bmp)	No. Split Spoons	Split Spoon Sampling Intervals	Proposed Laboratory Analysis [2]	Shelby Tube Interval [3] (ft bls)	Proposed Geotechnical Testing	Gamma Log	Rationale
Completed Soil Borings (SB)										
On-Site, Primary										
Parking Lot										
K8-SB	None	6	56	18	20 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >20 ft bls in NW Parking Lot.
L7-SB	None	6	56	18	20 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >20 ft bls in NW Parking Lot.
N3-SB	None	6	56	18	20 - 56	VOCs	N	N	Y	Delineate soil VOC impacts >20 ft bls in South Parking Lot.
N5-SB	None	6	56	23	10 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >10 ft bls in Central Parking Lot.
N6-SB	None	6	56	23	10 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >10 ft bls in Central Parking Lot.
N8-SB	None	6	56	18	20 - 56	VOCs	N	N	Y	Delineate soil VOC impacts >20 ft bls in East Parking Lot.
P5-SB	None	6	56	18	20 - 56	VOCs	N	N	Y	Delineate soil VOC impacts >20 ft bls in North Parking Lot.
Proposed Soil Borings (SB)										
On-Site, Primary										
Ballfield										
G3-SB	B-32	6	56	15	26 - 56	VOCs	N	N	Y	Delineate western extent of source-strength soil VOC impacts.
I1-SB	None	6	56	28	0 - 56	VOCs	N	N	Y	Delineate southern extent of source-strength soil VOC impacts.
I2-SB	P-28/B-14	6	56	28	0 - 56	VOCs	N	N	Y	Characterize southern portion of source-strength soil VOC impacts.
I3-SB	None	6	56	28	0 - 56	VOCs	N	N	Y	Characterize central portion of source-strength soil VOC impacts.
I4-SB	**B-67**	6	56	15	40 - 46; 48-56	VOCs	N	N	Y	Characterize northern portion of source-strength soil VOC impacts.
J2-SB	B-35	6	56	28	0 - 56	VOCs	N	N	Y	Delineate southeastern extent of source-strength soil VOC impacts. PID Screening to 44 ft bls, with VOC samples collected continuously from 44 to 56 ft bls (water table).
J3-SB	B-35	8	56	28	0 - 56	VOCs	N	N	Y	Delineate eastern extent of source-strength soil VOC impacts. PID Screening to 44 ft bls, with VOC samples collected continuously from 44 to 56 ft bls (water table).
On-Site, Contingency										
Parking Lot										
Q5-SB	None	8	56	18	20 - 56	VOCs	N	N	N	If needed based on P5-SB, delineate soil VOC impacts >20 ft bls in North Parking Lot.

ARCADIS

Table 1. Summary of Proposed Remedial Investigation Soil Borings, Former Grumman Settling Ponds (Operable Unit 3 - Bethpage Community Park), Bethpage, New York.

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Proposed Geotechnical Borings (GB)										
On-Site										
I2-GB	None	8	56	0	0	N	2-4; 10-12; 14-16; 20-22; 38-40; 48-50	[4]	N	In general, geotechnical soil borings will be drilled and sampled to determine soil properties of sand and lower permeability soils in area exhibiting high concentrations of VOCs.
I3-GB	None	8	56	0	0	N	2-4; 10-12; 14-16; 20-22; 38-40; 48-50	[4]	N	
N5-GB	None	8	56	0	0	N	2-4; 10-12; 14-16; 20-22; 38-40; 48-50	[4]	N	
N6-GB	None	8	56	0	0	N	2-4; 10-12; 14-16; 20-22; 38-40; 48-50	[4]	N	
Totals:		--	1064	324	--	--	24		--	

(1) Proposed soil boring shown in **Bold** text.

(2) The soil samples will be analyzed for VOCs using methods specified in the NYSDEC-approved April 2006 RI/FS Work Plan. See RI/FS Work Plan QAPP and FSP for additional sample collection/analytical methodology. Soil boring locations may be modified and/or additional borings may be drilled, depending on field conditions.

(3) Shelby Tube samples will be collected from sand and lower permeability soils in selected borings. Specified locations/intervals may be modified based on field conditions.

(4) Shelby Tube sample parameters and methods are specified in the NYSDEC-approved April 2006 RI/FS Work Plan.