

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

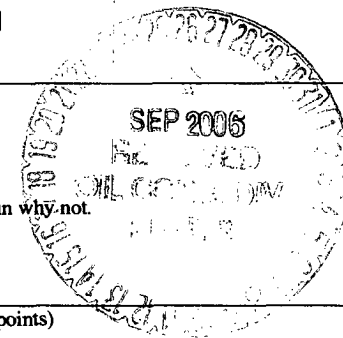
Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <u>Elm Ridge Resources</u> Telephone: <u>(505) 632-3476</u> e-mail address: <u>amackey1@elmridge.net</u>		
Address: <u>#20 CR 5060, Bloomfield, New Mexico, 87413</u>		
Facility or well name: <u>Dome Federal 24 No. 21</u> API #: <u>300⁴⁵25244</u> U/L or Qtr/Qtr <u>C</u> Sec <u>24</u> T <u>23N</u> R <u>8W</u>		
County: <u>Rio Arriba</u> Latitude <u>36.21831</u> Longitude <u>-107.63583</u> NAD: 1927 ☒ 1983 ☐		
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐		
Pit Type: Drilling ☐ Production ☒ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☒ Liner type: Synthetic ☐ Thickness <u> </u> mil Clay ☐ Pit Volume <u> </u> bbl	Below-grade tank Volume: <u> </u> bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more (0 points) 10	
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points) 0	
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (0 points) 20	
Ranking Score (Total Points) 30		

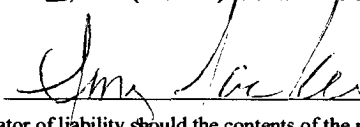
If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☒ If offsite, name of facility Envirotech Landfarm #2. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:
Approximately 290 cubic yards of contaminated soil was excavated and hauled to Envirotech's Landfarm #2
Composite of North and East walls was turned in for analysis 8015, see attached
Bedrock encountered at 12 feet BGS at shale layer, 8015/8021 results attached

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 9/21/06

Printed Name/Title Ms. Amy Mackey, Production Technician

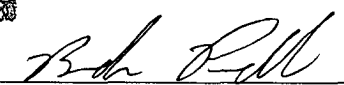
Signature 

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

DEPUTY OIL & GAS INSPECTOR, DIST. 20

Approval:

Printed Name/Title

Signature 

Date: SEP 26 2006

CLIENT: _____

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS

5796 U.S. HIGHWAY 64-3014

FARMINGTON, NEW MEXICO 87401

PHONE: (505) 632-0815

LOCATION NO: _____

C.D.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: DOMO FEDERAL WELL #: 24-21 PIT: Sep

DATE STARTED: _____

QUAD/UNIT: _____ SEC: _____ TWP: _____ RNG: _____ PM: _____ CNTY: _____ ST: _____

DATE FINISHED: 8/24/06

QTR/FOOTAGE: _____ CONTRACTOR: _____

ENVIRONMENTAL SPECIALIST: GWC

EXCAVATION APPROX. 24 FT. x 16 FT. x 12 FT. DEEP. CUBIC YARDAGE: _____

DISPOSAL FACILITY: Envirotech Landfarm #2 REMEDIATION METHOD: Landfarm

LAND USE: _____ LEASE: _____ FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 105 FT. 305° FROM WELLHEAD.

DEPTH TO GROUNDWATER: 50-100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: <200

NMCD RANKING SCORE: 30 NMCD TPH CLOSURE STD: 100 PPM

SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:

☐ PIT ABANDONED

☒ STEEL TANK INSTALLED

Approximately 290 yd³ of contaminated soil was excavated & transported to Envirotech's Landfarm #2

SCALE

0

FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1400	South wall		5.0	20	4	2	8

PIT PERIMETER

OVM RESULTS

PIT PROFILE

24

16

30

Sep

Pump Jack

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 South	4
2	
3	
4	
5	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

* - wall sample

+ - bottom sample

TRAVEL NOTES: _____ CALLOUT: _____ ONSITE: _____

CONTINUOUS CALIBRATION

EPA METHOD 418.1

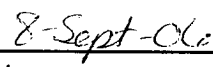
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 9-Aug-06

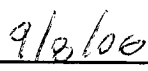
Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	221
	200	
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.


Analyst


Date


Review


Date

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-047
Sample No.:	1	Date Reported:	9/8/2006
Sample ID:	Composite Sample of West Wall	Date Sampled:	8/9/2006
Sample Matrix:	Soil	Date Analyzed:	8/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	80.0	5.0
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Dome Federal 24 No. 21**

Instrument calibration checked against 200 ppm standard. Zeroed before each sample



Analyst



Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Elm Ridge Resources	Project #:	03056-040-047
Sample No.:	2	Date Reported:	9/8/2006
Sample ID:	Composite Sample of North Wall Wa	Date Sampled:	8/9/2006
Sample Matrix:	Soil	Date Analyzed:	8/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	484.0	5.0
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ND = Parameter not detected at the stated detection limit.

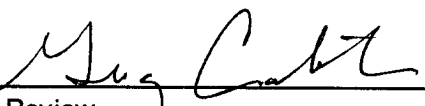
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Dome Federal 24 No. 21**

Instrument calibration checked against 200 ppm standard. Zeroed before each sample



Analyst



Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Elm Ridge Resources	Project #:	03056-040-047
Sample No.:	3	Date Reported:	9/8/2006
Sample ID:	Composite Sample of East Wall	Date Sampled:	8/9/2006
Sample Matrix:	Soil	Date Analyzed:	8/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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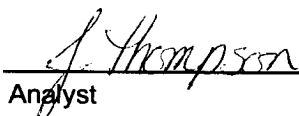
Total Petroleum Hydrocarbons	460.0	5.0
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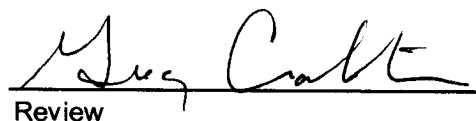
ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Dome Federal 24 No. 21**

Instrument calibration checked against 200 ppm standard. Zeroed before each sample


Analyst


Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Elm Ridge Resources	Project #:	03056-040-047
Sample No.:	1	Date Reported:	9/8/2006
Sample ID:	Composite sample of South wall	Date Sampled:	8/24/2006
Sample Matrix:	Soil	Date Analyzed:	8/24/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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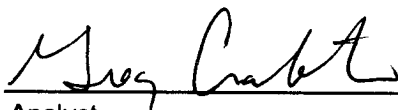
Total Petroleum Hydrocarbons	8.0	5.0
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Dome Federal 24 No. 21**

Instrument calibration checked against 200 ppm standard. Zeroed before each sample



Analyst



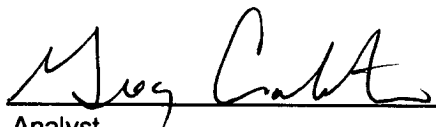
Review

CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 24-Aug-06

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	208
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.


Analyst

9/8/06
Date


Review

8-SEPT-06
Date

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Elm Ridge
Sample ID: Bottom
Laboratory Number: 38126
Chain of Custody No: 1322
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

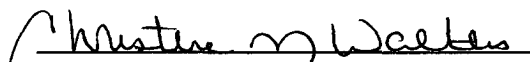
Project #: 03056-040-047
Date Reported: 08-14-06
Date Sampled: 08-09-06
Date Received: 08-09-06
Date Extracted: 08-11-06
Date Analyzed: 08-14-06
Analysis Requested: 8015 TPH

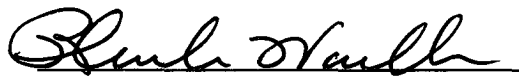
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	120	0.2
Diesel Range (C10 - C28)	643	0.1
Total Petroleum Hydrocarbons	763	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Dome Federal 24-21.**


Analyst


Review

**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

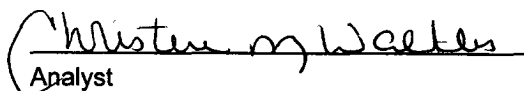
Client:	Elm Ridge	Project #:	03056-040-047
Sample ID:	North & East	Date Reported:	08-14-06
Laboratory Number:	38127	Date Sampled:	08-09-06
Chain of Custody No:	1322	Date Received:	08-09-06
Sample Matrix:	Soil	Date Extracted:	08-11-06
Preservative:	Cool	Date Analyzed:	08-14-06
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

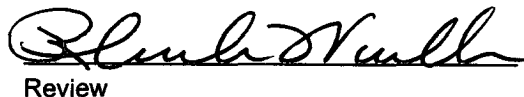
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Dome Federal 24-21.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-14-06 QA/QC	Date Reported:	08-14-06
Laboratory Number:	38120	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-14-06
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	07-11-05	1.0388E+003	1.0399E+003	0.10%	0 - 15%
Diesel Range C10 - C28	07-11-05	1.2885E+003	1.2911E+003	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

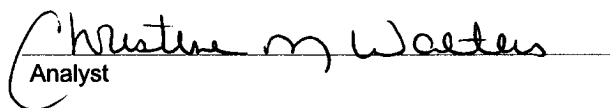
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	1.1	1.1	0.0%	0 - 30%

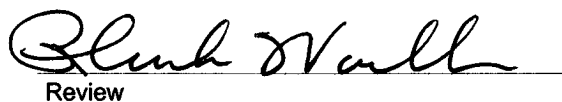
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	249	99.6%	75 - 125%
Diesel Range C10 - C28	1.1	250	250	99.4%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 38120 - 38127, 38143 and 38155.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Elm Ridge	Project #:	03056-040-047
Sample ID:	Bottom	Date Reported:	08-14-06
Laboratory Number:	38126	Date Sampled:	08-09-06
Chain of Custody:	1322	Date Received:	08-09-06
Sample Matrix:	Soil	Date Analyzed:	08-14-06
Preservative:	Cool	Date Extracted:	08-11-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	21.1	1.8
Toluene	27.1	1.7
Ethylbenzene	685	1.5
p,m-Xylene	342	2.2
o-Xylene	115	1.0
Total BTEX	1,190	

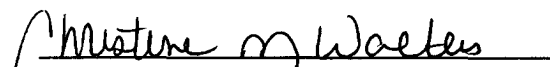
ND - Parameter not detected at the stated detection limit.

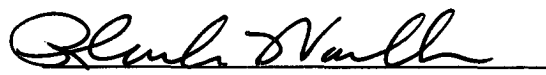
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Dome Federal 24-21.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	08-14-BTEX QA/QC	Date Reported:	08-14-06
Laboratory Number:	38120	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-14-06
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	O-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	5.8509E+007	5.8627E+007	0.2%	ND	0.2
Toluene	8.8412E+007	8.8589E+007	0.2%	ND	0.2
Ethylbenzene	3.8846E+007	3.8924E+007	0.2%	ND	0.2
p,m-Xylene	1.5066E+008	1.5096E+008	0.2%	ND	0.2
o-Xylene	7.9192E+007	7.9350E+007	0.2%	ND	0.1

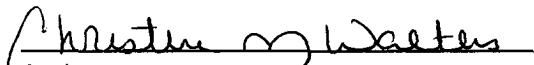
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	8.5	8.3	2.4%	0 - 30%	1.8
Toluene	12.7	12.7	0.0%	0 - 30%	1.7
Ethylbenzene	22.8	22.7	0.4%	0 - 30%	1.5
p,m-Xylene	50.8	50.5	0.6%	0 - 30%	2.2
o-Xylene	35.5	35.4	0.3%	0 - 30%	1.0

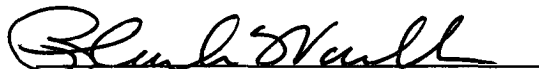
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	8.5	50.0	58.5	100.0%	39 - 150
Toluene	12.7	50.0	62.4	99.5%	46 - 148
Ethylbenzene	22.8	50.0	72.7	99.9%	32 - 160
p,m-Xylene	50.8	100	151	99.9%	46 - 148
o-Xylene	35.5	50.0	85.3	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 38120 - 38126.


Analyst


Review

1322

san ivan reproduction 578-129

Bill of Lading

MANIFEST #

DATE 8-29-06

JOB #

JOB # 03050-040-047

ENTERED AUG 31 2015

NAME Jimmy Cardenas

COMPANY Envirotech

SIGNATURE

COMPANY CONTACT

PHONE

DATE _____

DATE (month)

Bill of Lading

25946

MANIFEST #

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 8-29-06

JOB # 03056-640-047

[illegible]

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Tim Cardenas COMPANY Enuraftech SIGNATURE _____

DATE _____

PHONE

COMPANY CONTACT

san juan reproduction 578-126

Bill of Lading

MANIFEST #

25972

DATE 8/30/06 JOB # 0305a-040-b47

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

COMPANY *Enviro-tech*

SIGNATURE

PHONE

DATE _____

From

Bill of Lading

MANIFEST #

25990

DATE 8-31-06

JOB # 0506-0087

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Jim Cardenas

COMPANY ΣυνοικτςΗ

SIGNATURE John C. Edwards

COMPANY CONTACT
san juan reproduction 578-126

PHONE

DATE 8-31-06

④

COMPANY CONTACT _____
san juan reproduction 578-126

PHONE _____

DATE 8-31-06