August 9, 2015 Daily Report

(Presenting August 8 Progress and Plans Forward)

Refugio Incident

This daily report addresses elements listed in the *Order for Removal, Mitigation or Prevention of a Substantial Threat of Oil Discharge*. The elements include descriptions of 1) anticipated problems and planned resolutions, 2) significant developments, 3) work performed, 4) treatment and disposal information, 5) analytical data received, and 6) schedule of work. The following attachments contain detailed information pertaining to each listed element:

- **Summary of Anticipated Problems and Resolutions** (August 9)
    - Anticipated problems and planned resolutions

- **Daily Progress Report** (describing prior day, August 8)
    - Significant Developments
    - Work Performed
    - Disposal Information

- **CTEH Summary of Environmental Sampling Efforts** (as issued on August 5)
    - This will be the final environmental summary, as water sampling was discontinued on July 20th.

- **Incident Action Plan** (Effective July 10 06:01 – August 12 6:00)
    - Schedule of Work to be Performed (Form 204)

Summary of Anticipated Problems and Resolutions

Refugio Incident

August 9, 2015

Anticipated Problems	Planned Resolutions
• Beach access in section K and J with while beaches are open to the public.	• Strategic placement of security guards letting them public know that we are working to clean up stained and oiled rocks.
• Purchasing of scrapers and brushes for sawzalls is becoming difficult due to under production.	• Working with Sawzall for increased production and locating consumable supplies.
• Tide swings showing no accessible day work after Thursday of this week.	• Revert to night crews.
• Larger crews and night operations need additional resources in Section I5C.	• Provide extra fuel for night operations. • Provide extra restrooms for larger crews.
• Helicopter usage on open beaches with public, public still accessing site.	• Increased amount of guards by 1 for a total of 5. • Only use helicopter on Monday – Thursday on open beaches during day time. Friday – Saturday in Section I-5.
• Slips and trips may occur during equipment delivery down steep slopes.	• Use helicopter to deliver equipment.
• Needing additional routes to the beach.	• Working with Cultural and Archeologist to develop options.

Incident Command Post Santa Barbara
Refugio Oil Spill
Unified In All Missions
August 8, 2015
Response Day 82

Daily Progress Report

The ICP is currently overseeing operations in Santa Barbara County. Active day and night field operations are ongoing in Santa Barbara Division I.

Safety

- Work site accidents / mishaps resulting in property damage or injuries to responders beyond First Aid:
    - 12 Recordable Injuries to date related to this response.

Environmental

Shoreline Cleanup Assessment Techniques (SCAT) Phase II end points have been achieved for 91.4% of the overall impacted shoreline and 1.1% remains active for recovery operations. The remaining 7.5% is being actively monitored by response personnel.

Waste Management data

Waste Management (26 June – 08 August 2015)		
Material	**Estimated Daily Total Removed (cubic yards)**	**Estimated Cumulative Total Removed (cubic yards)**
Oiled Sand	15	1200
Oiled Vegetation	15	900
Oiled Debris/PPE	30	1650
Oiled Soil	0	7812
Culvert Soil	0	2010
Absorbent	0	345

Operations

- Command Objectives achieved: NSTR
- Severe weather conditions that may impact operations: NSTR
- Deviation of strategies or tactics from approved Incident Action Plan: NSTR
- Major equipment failures that impact operations: NSTR
- Change to or need for additional road closures: Lane closures are no longer in effect shoulder closures will remain in effect to create safe areas for workers ingress and egress from their vehicles to access work areas.
- Temporary Flight Restriction: In place until August 31, 2015.

- Cultural / historical impacts and/or concerns: NSTR.

Wildlife

Current as of:	TOTAL Birds			Birds Released	TOTAL Mammals			Mammals Released
08 August	Live	Dead	Total	Total	Live	Dead	Totals	Total
Cumulative Total	64	195	259	48	62	106	168	9

NOTE- Wildlife Branch field recovery operations and Command Post presence have been demobilized. Care for oiled wildlife continues off-site with oversight by the Wildlife Branch Director also working remotely. Wildlife numbers will be updated in the future only to add to numbers of animals released, or if corrections to previous numbers are required based on continuing review of records.

Liaison

- Any VIP visits or political interests and concerns: NSTR
- Reports of negative stakeholder interests: NSTR
- Cultural / historical impacts and/or concerns: NSTR

Public Information

Publication of significant media issues: NSTR

Logistics

- Change in status for any Incident facilities: NSTR

Personnel Involved

- 307 workers are engaged in Field Operations.
- 17 personnel are assigned to the ICP.
- 324 total personnel are assigned to the response.

Refugio Incident
Summary of CTEH® Environmental Sampling Efforts
August 5, 2015

As part of response efforts, CTEH® began collecting product and environmental samples, i.e., water and/or sediment, on May 20, 2015. This environmental sampling has been conducted under a Unified Command-approved sampling plan. This report contains environmental sampling efforts completed to date by CTEH® in support of Refugio Incident response efforts. **Table 1**, below, provides a sample count for each type of environmental media collected by CTEH®. **Table 2** provides a summary of TPH[1] data reported in water samples to date. Maps of environmental sampling locations are provided as attachments.

Table 1: Environmental Preliminary Sample Summary
05/20/2015– 08/04/2015

Media	Matrix	Sample Count
Water	Surface Water	284
	Water Column	54
	Culvert/Flush Water	12
Sediment	Beach Sediment[2]	67
	Ocean Sediment[3]	15
Soil	Potential Backfill Soil/Sand	58
	Section Four Soil	39
	Trench Excavation/Section One Soil	63
	Section Two/Three Soil	9
	Section 1 – Background Soil	20
	Section 4 - Background Soil	20
Petroleum	Product/Tar Ball Sample	238
	Sheen/Seep	14

[2] Beach sediment samples were collected from both the intertidal zone and on dry sand above the intertidal zone.

[3] Ocean sediment samples were collected at the same location as the water column samples.

[1] For the purposes of this report, TPH represents a summation of TPH-Oil Range Organics (ORO), TPH-Diesel Range Organics (DRO), and TPH-Gasoline Range Organics (GRO).

Table 2: TPH[1] Preliminary Data Summary[4]
05/20/2015– 08/04/2015

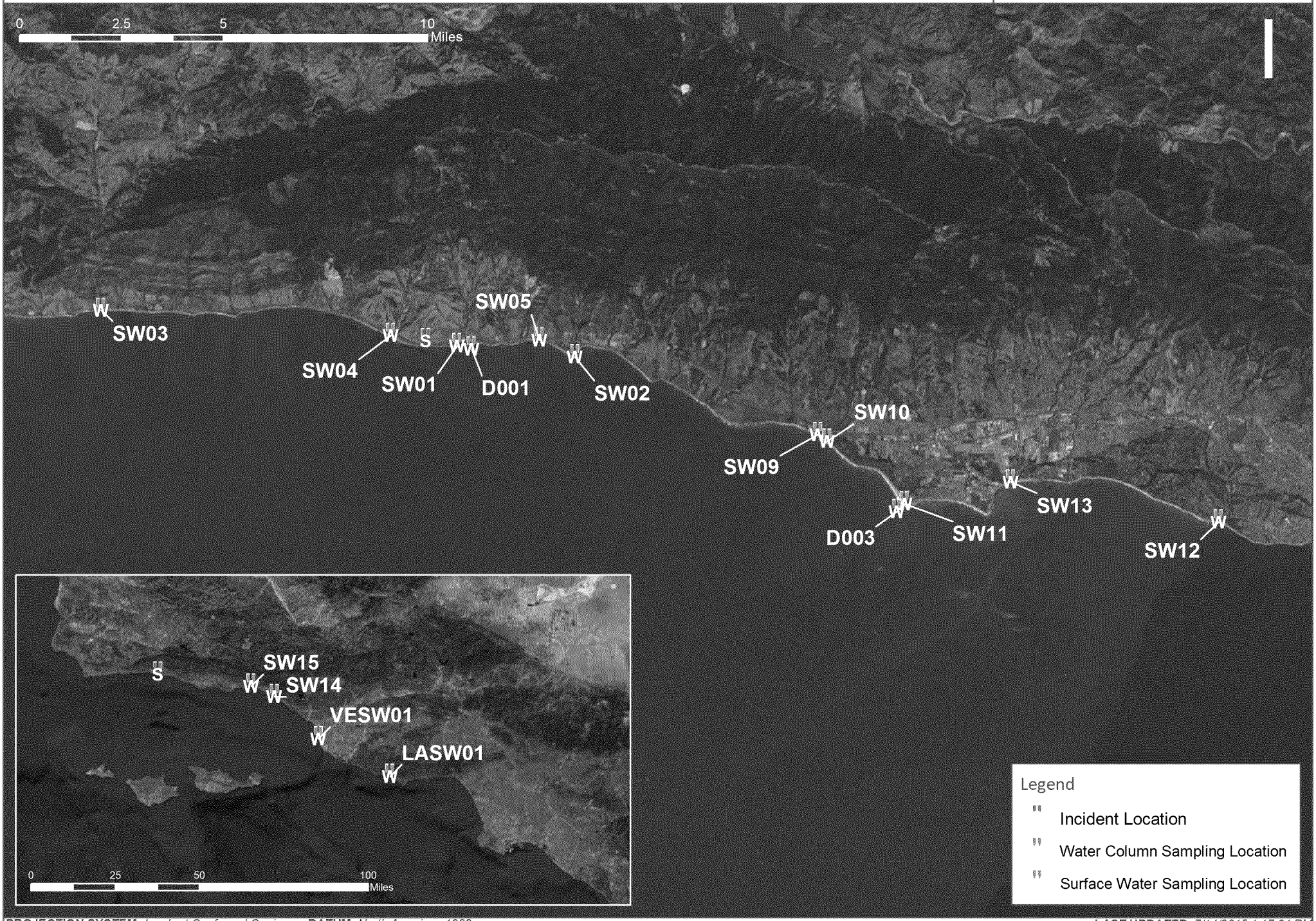
		Highest Detection		Most Recent TPH Result Received	
	Location	Date	TPH (mg/L)	Date	TPH (mg/L)
Water Column	D001-S	6/6/2015	0.228	6/6/2015	0.228
	D001-M	5/22/2015	0.1	6/6/2015	ND
	D001-D	6/3/2015	0.5	6/6/2015	ND
	D003-S	5/31/2015	0.189	6/1/2015	ND
	D003-M	No detections		6/1/2015	No detections
	D003-D	No detections		6/1/2015	No detections
Surface Water	SW01	5/26/2015	11.9	7/19/2015	0.058
	SW02	5/21/2015	677.111	7/19/2015	0.11
	SW03	5/26/2015	4.9	7/19/2015	ND
	SW04	6/14/2015	16.6	7/19/2015	ND
	SW05	6/3/2015	63.1	7/19/2015	ND
	SW09	6/5/2015	6.9	7/20/2015	ND
	SW10	5/21/2015	1.89	5/21/2015	1.89
	SW11	6/6/2015	2.3422	7/20/2015	0.21
	SW12	6/10/2015	5.1	7/20/2015	0.062
	SW13	6/6/2015	1.9	7/20/2015	1.38
	SW14	No detections		6/9/2015	No detections
	SW15	7/6/2015	2.03	7/6/2015	2.03
	LASW01	No detections		6/8/2015	No detections
	VESW01	No detections		6/9/2015	No detections

[4] The data presented within the table is considered preliminary and has not completed the full QA/QC process.

Water Sampling Locations

Refugio Incident | May 20, 2015 to July 21, 2015

Project: 107292
Client: Plains All American Pipeline
City: Gaviota, CA
County: Santa Barbara



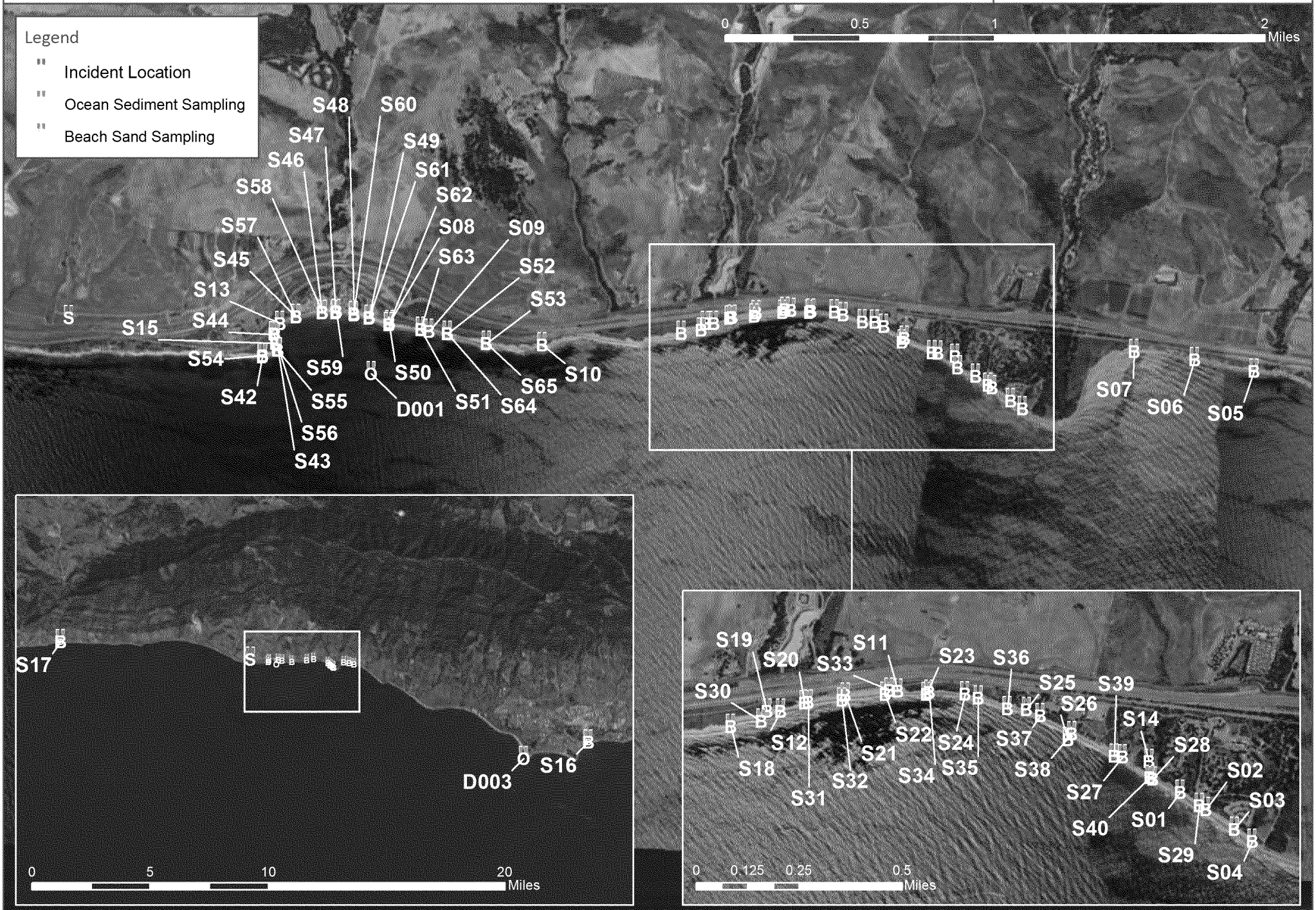
PROJECTION SYSTEM: *Lambert Conformal Conic* **DATUM:** *North American 1983*

LAST UPDATED: *7/14/2015 1:17:04 PM*

Sediment/Sand Sampling Locations

Refugio Incident | May 23, 2015 to July 21, 2015

Project: 107292
Client: Plains All American Pipeline
City: Gaviota, CA
County: Santa Barbara



PROJECTION SYSTEM: *Lambert Conformal Conic* DATUM: *North American 1983* LAST UPDATED: *7/14/2015 1:10:31 PM*

ORIGINAL

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time)	Operational Period	CG IAP
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	COVER SHEET

3. Approved by

ORG	Name
USCG	Captain J. Williams
U.S. EPA	M. Waldon
CAL DFW	Capt. M. Crossland
Plains	P. Hodgins
SBCOEM	R. Troy ROCKABRAND

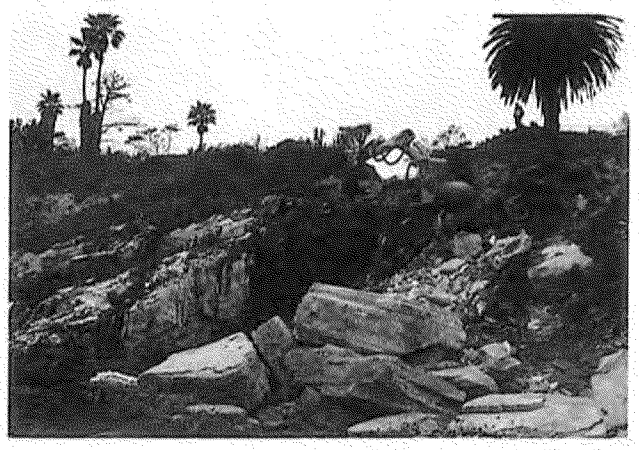
INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☒ ICS 202-OS (Response Objectives)
- ☒ ICS 203-OS (Organization List) - or - ICS 207-OS (Organization Chart)
- ☒ ICS 204-CGs (Assignment Lists) One Copy each of any ICS 204-CG attachments
- ☐ ICS 205-CG (Communications Plan)
- ☒ ICS 206-CG (Medical Plan)
- ☒ ICS 208-CG (Site Safety Plan) or Note SSP Location Located at CP and Staging Areas
- ☒ Map/Chart
- ☒ Weather forecast/Tides/Currents

Other Attachments

Incident Picture



ORIGINAL

4. Prepared by	Date / Time
T. Haug/R.Andersen	07/09/2015 14:20

ORIGINAL

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	INCIDENT BRIEFING
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	ICS 202-CG

3. Objective(s)

Ensure the safety of response personnel and the public.

Pending acceptable soil sample results, initiate backfill and remediation plans in Sections 1 and 4.

Continue the clean up of all open Divisions, maximizing clean up during optimal tidal periods, in accordance with the Shoreline Treatment Recommendations to meet Phase II endpoints.

Implement Section 5 actions in accordance with "Section 5 Cliff Face Area Evaluation of Potentially Feasible Remedial Options."

Protect and minimize impacts to environmental, cultural, historic and economic resources where feasible.

Continue to care for and monitor the disposition of previously captured, injured and oiled wildlife.

Continue to provide stakeholders and the community relevant information about progress of response efforts.

Complete and implement Phase 3 Plan when deemed appropriate by the Unified Command.

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

Clean to phase 2 endpoints where possible.

Implement Decon and Demob as operations permit.

Continue to integrate local jurisdictional agencies with operations associated with Sections 1 thru 5.

Continue to emphasize safety in all operations with an emphasis on Sections 4 and 5.

Return State Parks to full use as soon as possible.

Maintain cultural/historical coordination for all operations and SCAT sign-offs.

Identify or list the segments requiring phase 3 monitoring.

Provide daily progress reports

Approved Site Safety Plan Located at the Goleta ICP Situation Status wall

Prepared by	Date/Time
T. Haug/R. Andersen	07/09/2015 12:50

1. Incident Name	2. Operational Period (Date/Time)	Critical Information Requirements
Refugio Incident	From: 10Jul2015/0600 To: 12Aug2015/0600	ICS 202B

3. Critical Information Requirements:

A. Work site accidents / mishaps resulting property damage or injuries to responders beyond first aid.

B. Major equipment casualties.

C. Any VIP visits or political interest and concerns.

D. Command Objectives achieved.

E. Deviation of strategies or tactics from approved Incident Action Plan.

F. Severe weather condition which could impact Operations.

G. Publication of inaccurate, significant, or unfavorable media stories.

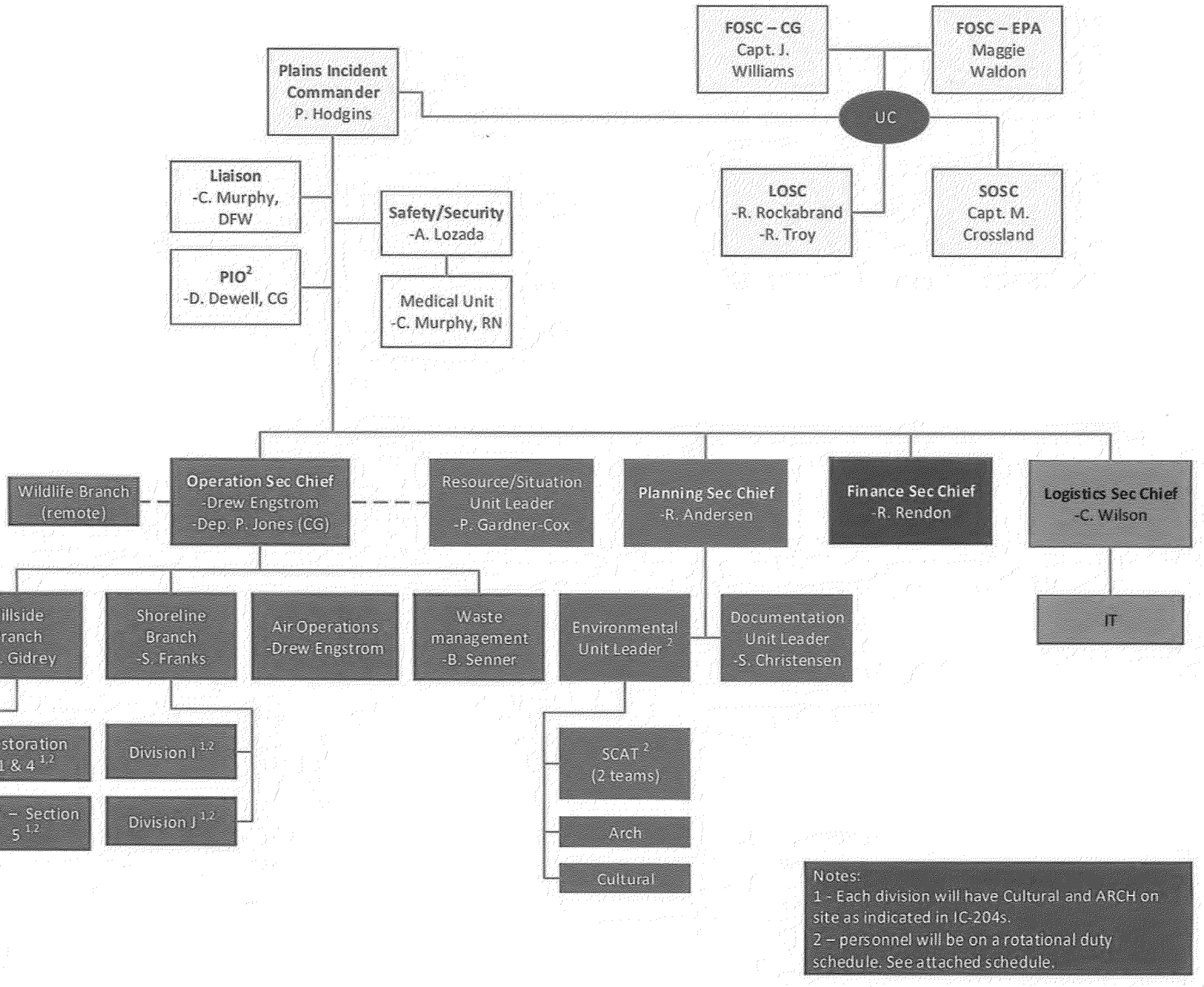
H. Reports of negative stakeholder interests.

I. Cultural/historical impacts and/or concerns.

J. Change in status for any Refugio Incident facilities.

K. Change to or need for additional road closures.

4. Prepared by: (RESL)	Date/Time
Pete Gardner-Cox	09 July 2015 / 1500


FOSC – CG
Capt. J. Williams
FOSC – EPA
Maggie Waldon
Plains Incident Commander
P. Hodgins
UC
Liaison
-C. Murphy, DFW
Safety/Security
-A. Lozada
LOSC
-R. Rockabrand
-R. Troy
SOSC
Capt. M. Crossland
PIO[2]
-D. Dewell, CG
Medical Unit
-C. Murphy, RN
Wildlife Branch (remote)
Operation Sec Chief
-Drew Engstrom
-Dep. P. Jones (CG)
Resource/Situation Unit Leader
-P. Gardner-Cox
Planning Sec Chief
-R. Andersen
Finance Sec Chief
-R. Rendon
Logistics Sec Chief
-C. Wilson
Hillside Branch
-M. Gidrey
Shoreline Branch
-S. Franks
Air Operations
-Drew Engstrom
Waste management
-B. Senner
Environmental Unit Leader [2]
Documentation Unit Leader
-S. Christensen
IT
Restoration 1 & 4 [1,2]
Division I [1,2]
Cliff – Section 5 [1,2]
Division J [1,2]
SCAT [2] (2 teams)
Arch
Cultural
Notes:
1 - Each division will have Cultural and ARCH on site as indicated in IC-204s.
2 – personnel will be on a rotational duty schedule. See attached schedule.

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	Assignment List
Refugio Incident	**From** 07/10/2015 06:01 **To** 08/12/2015 06:00	Ops Period 21	**ICS 204-CG**

3. Branch	4. Division/Group/Staging
Wildlife Branch	Wildlife Rehab Group
Task Force/Strike Team	**Team**

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director	Holly Gellerman (remote)	CA DFW OSPR	916-747-0611
Division/Group Supervisor/STAM	Mike Ziccardi/Sarah Wilkin (remote)	OWCN/NOAA	530-979-7561

6. Resources Assigned 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes	
1 (each)	Care/Processing Group - Birds	C. Fiorello	530-979-0380	4	See work assignment and special instructions	☐
1 (each)	Care/Processing Group - Mammals	J. Westberg	858-229-5639	8	See work assignment and special instructions	☐
1 (each)	Care Facility			2		☐

7. Work Assignments

Care/Processing - Document oiling status, conduct intake examinations, necropsy dead animals, provide pre-wash care, clean oil from affected animals, return animals to normal function, and release in clean environment.

8. Special Instructions

Attend morning safety and planning briefing. Immediately report any injury to supervisor and complete an injury report form.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager

Emergency Communications

Medical:	**Evacuation:**	**Other:**

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 12:45	T. Haug/R. Andersen		Drew Engstrom	

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	Assignment List
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	ICS 204-CG

3. Branch	4. Division/Group/Staging
	Law - Security Group
Task Force/Strike Team	**Team**

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director			
Division/Group Supervisor/STAM	A . Lozada	Plains All American Pipeline	701-440-1643

6. Resources Assigned — 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes	
1 (each)	Law Enforcement Task Force	Rob Plastino	805-268-4035	10	Sheriff, State Parks, HCP, Fish and Wildlife	X
1 (each)	SB County Sites Task Force	Keith Radcliff	903-721-5030	37	Refugio State Park, Excavation Site, Gaviota, Las Veras	
1 (each)	ICP Security	Ben Poch	318-218-6888	4	ICP	
1 (each)	Technician to replace security guard					

7. Work Assignments

Prevent unauthorized persons from entering or remaining in the spill area, staging areas, and the ICP. Contact and identify all persons not readily identifiable. Escort any unauthorized person from the area.

Land units- Contact any unidentified vehicle parked in the area with emphasis on highway 101 where access to the beach can be made. Remove all unauthorized persons and vehicles. Do not loiter on or around the railway.

8. Special Instructions

Identify any persons or vessels that may need decontamination. Personnel are remined to stay hydrated and work rest regimen as neccessary.

SAFETY MESSAGE
All response personnel are to be cautious of moving vehicles at all times and look in all directions before proceeding. Response personnel should be aware that all railroad tracks are in active use and should show extreme caution when operating in vicinity of tracks.

HISTORICAL/CULTURAL GUIDELINES

- Leave cultural materials in place at the site of discovery, and mark its location.
- Stop clean-up work in the vicinity surronding the site, within a 6ft radius.
- Immediately inform the field supervisor, who in turn, should immediately inform the FOSC and/or an appropriately designated cultural resource specialist. Obtain/provide location on map by indicating latitude/longitude.

Report All Injuries require a immediate notification to Direct Supervisor.

In the event a scheduled meal is not made available to your crew, report this immediately to your Branch Director and the Logistics Section Chief.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager

Emergency Communications

Medical: 911 **Evacuation:** 911 **Other:** 911

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 14:00	T. Haug/R. Andersen		D. Engstrom	

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	Assignment List
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	ICS 204-CG
3. Branch	4. Division/Group/Staging		
	Pipeline Section 1 - 4		
Task Force/Strike Team	Team		

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director			
Division/Group Supervisor/STAM	Branch Dir - M. Guidrey	Plains All American Pipeline	337-526-8539

6. Resources Assigned — 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes
1 (each)	Section 1/2/3/4 Task Force	Ryan Crider	504-214-7657	0	
1 (each)	Excavation Task Force	EPA Rep		0	
1 (each)	Crane			0	

7. Work Assignments

Excavation Task force will carry out operations to meet established endpoints.

Section 1-4 Task Force Shall:
-Conduct removal operations of oil and contaminated solid waste in accordance with the approved Section Plan.

-All lifting operations will be conducted in accordance with the UC approved Lift Plan.

Sample according to the approved Sample Confirmation Plan for Sections 1 thru 4.

Follow "Excavation Backfill and Site Restoration Plan" 6/24/15 once environmental receives satisfactory results from data analysis.

Plains Environmental Contact, Chris Lauer, 832-904-5247.

Once backfill is to the point of culvert instlallation, contact Chris Lauer prior to commencing work.

8. Special Instructions

Excavation Task Force
Safety Officers shall be present during operations
Prior to excavations archeologist shall be consulted and if there are any cultural or historic resource concerns, archeologist shall be present to monitor the operations

1. A minimum of 25 feet from the potential release locations shall be maintained
2. All recovered oil shall be quantified and disposed of in accordance with the waste management plan.

HAZARD MITIGATION
-All personnel operating shall wear level D (hard hats, safety toe boots, safety glasses).
-All personnel are reminded to stay hydrated and take breaks as needed.
- Notify Assistant Safety Officer if safety issues arise.

SAFETY MESSAGE
All response personnel are to be cautious of moving vehicles at all times and look in all directions before proceeding. Response personnel should be aware that all railroad tracks are in active use and should show extreme caution when operating in vicinity of tracks.

HISTORICAL/CULTURAL/ENVIRONMENTAL GUIDELINES

- Leave cultural materials in place at the site of discovery, and mark its location.
- Stop clean-up work in the vicinity surronding the site, within a 6ft radius.
- Immediately inform the field supervisor, who in turn, should immediately inform the FOSC and/or an appropriately designated cultural resource

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 15:00	T. Haug/R. Andersen		D. Engstrom	

specialist. Obtain/provide location on map by indicating latitude/longitude.

- Wildlife - Depending on depth of trench/excavation consult with ENV Unit regarding covering at night to reduce entrapment of animals and/or exposure to contaminants.

An Archaeologist will periodically spot check, but full time archaeological monitoring is not necessary. The following activities DO NOT require full time archaeological monitoring:

1. Cleaning tar balls from the beach surface.

2. Cleaning oil/tar from cobbles on the beach.

3. Cleaning oil/tar from bedrock at the back edge of the beach.

4. Cleaning oil/tar from rocks and bedrock that protrude from the beach.

Cultural protocols will remain unchanged.

(dtd 23 Jun 15)

POC to schedule/request ARCH is the following:

Clay Lebow: July 9 - July 13 (805-895-2958)

Jay Lloyd: July 13 - July 20 (559-287-2137)

Ann Munns: July 20 - July 27 (805-451-5825)

Clay Lebow: July 27 - August 3 (805-895-2958)

Jay Lloyd: August 3 - August 10 (559-287-2137)

Report All Injuries require a immediate notification to Direct Supervisor.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager
Emergency Communications			

Medical: **Evacuation:** **Other:**

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 15:00	T. Haug/R. Andersen		D. Engstrom	

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	Assignment List
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	ICS 204-CG

3. Branch	4. Division/Group/Staging
Air Operations Branch	
Task Force/Strike Team	**Team**

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director	Drew Engstrom	Plains All American Pipeline	307-251-6932

6. Resources Assigned 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes
1 (each)	Helicopter			0	

7. Work Assignments

Section 5 debris removal

8. Special Instructions

Air Ops Minimization Measures

- Maintain minimum altitude of 500 feet above or a 1/2 mile away from Snowey Plover Habitat in the vicinity of Coal Oil Point.

SAFETY MESSAGE
All response personnel are to be cautious of moving vehicles at all times and look in all directions before proceeding. Response personnel should be aware that all railroad tracks are in active use and should show extreme caution when operating in vicinity of tracks.

Report All Injuries require a immediate notification to Direct Supervisor.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager
123.02 MHZ	VHF channel 10&16		
Emergency Communications			

Medical: **Evacuation:** **Other:**

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 15:00	T. Haug/R. Andersen		D. Engstrom	

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	Assignment List
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	ICS 204-CG
3. Branch	4. Division/Group/Staging		
	Section 5		
Task Force/Strike Team	Team		

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director			
Division/Group Supervisor/STAM	Branch Dir - M. Guidry	Plains All American Pipeline	337-526-8539

6. Resources Assigned

'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Leader Identifier	Contact#	# Of Persons	Notes
1 (each)	Helicopter		0	
1 (each)	Spider hoe		0	
2 (each)	Pressure Washer		0	
15 (each)	Personnel		0	
1 (each)	Water pump		0	

7. Work Assignments

Excavation Task force will carry out operations to meet established endpoints.

Section 5 Task Force Shall:
-Conduct removal operations of oil and contaminated solid waste in accordance with the UC approved "Detailed Plan Remediation of Cliff Face Area (Section 5) July 2, 2015".

-All lifting operations will be conducted in accordance with the UC approved Lift Plan.

Follow "Plan for Remedation of Cliff Face Area" 6/24/15 along with the UC approved detailed plan (July 2, 2015).

8. Special Instructions

Excavation Task Force
Safety Officers shall be present during operations
When excavator has been secured, and after Air Monitors have deemed it safe to approach, archaeologist and cultural specialist will regularly monitor the operations.

PPE will be modified Leved D; Tyvek suit, safety glasses, hard hat, hard-toed shoes. Additional modifcations to PPE will be required during air lift operations (see site safety plan).

Air Monitoring will be required throughout operations.

1. A minimum of 25 feet from the potential release locations shall be maintained
2. All recovered oil shall be quantified and disposed of in accordance with the waste management plan.

See attached map showing minimization measures to implement concerning the access route to Section 5 Cliff Face. An archeologist and cultural rep will remain on site during operations to monitor traffic in order to minimize impacts to natural/cultural resources.

The protection measures include:

1. No pedestrian travel outside of the delineated pathways.
2. Pylons and flagging 2 feet South of toe of slope. Pedestrians are to stay South of this line.
3. No vehicles are permitted beyond the marked area (above the protective matting).

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 15:00	T. Haug/R. Andersen		Drew Engrstrom	

4. Protective matting will in place before operational crews access this area.

(dtd 5 July 2015)

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9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager

Emergency Communications

Medical: **Evacuation:** **Other:**

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 15:00	T. Haug/R. Andersen		Drew Engrstrom	

1. Incident Name	2. Operational Period (Date/Time)		Operational Period	Assignment List
Refugio Incident	From 07/10/2015 06:01	To 08/12/2015 06:00	Ops Period 21	ICS 204-CG
3. Branch	**4. Division/Group/Staging**			
Santa Barbara Recovery Branch	Division I			
Task Force/Strike Team	**Team**			

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director	S. Franks	Plains All American Pipeline	713-417-8525
Division/Group Supervisor/STAM	Division I Rotation	Plains All American Pipeline	PAAPL chart

6. Resources Assigned — 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes	
1 (each)	DB2	Eric Nanarette	951-295-2680	16		☐
1 (each)	DB3	Kenny Potts	909-626-9962	18		☐
1 (each)	DB1	Chris Hernandez	661-238-6702	16		☐
1 (each)	WCES 1	Devon Jackson	323-236-8961	50		☐

7. Work Assignments

Conduct shoreline cleanup in segments per the respective Shoreline Treatment Recommendation (STR) unless otherwise directed by the Division Supervisor due to operational need.

Conduct shoreline clean-up as directed as per SCAT Methodology.

Supervisors should evaluate their entire area of responsibility and report status changes to their Branch Director on a daily basis.

Crews may be deployed to other areas as conditions dictate.

Your entire area of responsibility has been surveyed by SCAT.

STR's have been established throughout your area of responsibility.

SCAT is not required to confirm achievement of Phase 1 endpoints.

Add 1 Biological Monitor when any cleanup operations occur in Division I, Sections SB-I-S004 or SB-I-S005.

Dry ice blasting has been approved for all sections.

Night Operations will be considered by OSC if tidal conditions and weather allow for safe and effective operations.

-OPS will not coincide with the local Grunion runs on beaches.

-Safety will adjust and increase on-site staffing to provide additional safety measures as necessary.

-This work option will be briefed to the UC, Command, General Staff and relevant stakeholders 24 hrs in advance of operations to ensure proper safety and support is provided.

8. Special Instructions

An Archaeologist will periodically spot check, but full time archaeological monitoring is not necessary. The following activities DO NOT require full time archaeological monitoring:

1. Cleaning tar balls from the beach surface.

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 12:30	T. Haug/R. Andersen	07/09/2015 12:30	Drew Engstrom	

2. Cleaning oil/tar from cobbles on the beach.

3. Cleaning oil/tar from bedrock at the back edge of the beach.

4. Cleaning oil/tar from rocks and bedrock that protrude from the beach.

Cultural protocols will remain unchanged.

(dtd 23 Jun 15)

POC to schedule/request ARCH is the following:

Clay Lebow: July 9 - July 13 (805-895-2958)

Jay Lloyd: July 13 - July 20 (559-287-2137)

Ann Munns: July 20 - July 27 (805-451-5825)

Clay Lebow: July 27 - August 3 (805-895-2958)

Jay Lloyd: August 3 - August 10 (559-287-2137)

See 204a for UC Clarification on working near cliffs - dtd 16 June.

ATV's not allowed in exclusion zones at El Capitan and Refugio.

Instructions for Dead Wildlife and Natural Resource Protection.

Any oiled wildlife (birds, mammals, or sea turtles) observed or incidentally collected in cleanup operations should be called in to the Wildlife Hotline at 877-823-6926.

Unknown source oil impacts should be reported to Lourdes Mahoney at 813-391-4657 (lmahony@cteh.com)

SAFETY MESSAGE

All personnel are reminded to keep hydrated and take rest breaks at a 50/10 work/rest ratio.

PPE: Hard hats, Tyvek suits, gloves, safety glass, neoprene boots. Avoid walking near waterways.
PFD's must be worn if the potential for drowning exists.
All response personnel are to be cautious of moving vehicles at all times and look in all directions before proceeding. Response personnel should be aware that all railroad tracks are in active use and should show extreme caution when operating in vicinity of tracks.

Report All Injuries require a immediate notification to Direct Supervisor.

Dry ice blasting Safety

Must utilize the following PPE: Tyvek Suit with Hood, appropriate gloves, steel-toed boots and ensure no skin is exposed. Ensure the operator of the gun has visual sight of the operator tending the machines or have someone in between to allow for stopping work when needed.

Hearing protection for all personnel within 30 feet of operation.

HISTORICAL/CULTURAL GUIDELINES

Leave cultural materials in place at the site of discovery, and mark its location.

Stop clean-up work in the vicinity surrounding the site, within a 6ft radius.

Immediately inform the field supervisor, who in turn, should immediately inform the FOSC and/or an appropriately designated cultural resource specialist. Obtain/provide location on map by indicating latitude/longitude.

In the event a scheduled meal is not made available to your crew, report this immediately to your Branch Director and the Logistics Section Chief.

No work in estuary or creek habitats without biological monitor and approval from EUL.

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 12:30	T. Haug/R. Andersen	07/09/2015 12:30	Drew Engstrom	

9. Communications (radio and/or phone contact numbers needed for this assignment)			
Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager
Emergency Communications			
Medical:	**Evacuation:**	**Other:**	

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 12:30	T. Haug/R. Andersen	07/09/2015 12:30	Drew Engstrom	

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Refugio Incident	From 07/10/2015 06:01	To 08/12/2015 06:00	Ops Period 21	ICS 204-CG
3. Branch	4. Division/Group/Staging			
Santa Barbara Recovery Branch	Division J			
Task Force/Strike Team	Team			

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director	S. Franks	Plains All American Pipeline	713-417-8525
Division/Group Supervisor/STAM	Div Rotation	Plains All American Pipeline	PAAPL chart

6. Resources Assigned — 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes
1 (each)	PAT1	Alex Lopez	562-244-2248	50	
1 (each)	PAT2	Anthony Gonzales	619-876-2360	50	

7. Work Assignments

Conduct shoreline cleanup in segments per the Shoreline Treatment Recommendation (STR) unless otherwise directed by the Division Supervisor due to operational need.

Supervisors should evaluate their entire area of responsibility and report status changes to their Branch Director on a daily basis.

Your entire area of responsibility has been surveyed by SCAT.

Conduct shoreline clean up in accordance with SCAT methodology.

STR's have been established throughout your area of responsibility.

SCAT is not required to confirm achievement of Phase 1 endpoints.

Crews may be deployed from other areas as conditions dictate.

Dry ice blasting of large surface rock, cobble and cliff face is approved for all areas.

Night Operations will be considered by OSC if tidal conditions and weather allow for safe and effective operations.

-OPS will not coincide with the local Grunion runs on beaches.

-Safety will adjust and increase on-site staffing to provide additional safety measures as necessary.

-This work option will be briefed to the UC, Command, General Staff and relevant stakeholders 24 hrs in advance of operations to ensure proper safety and support is provided.

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2. Cleaning oil/tar from cobbles on the beach.

3. Cleaning oil/tar from bedrock at the back edge of the beach.

4. Cleaning oil/tar from rocks and bedrock that protrude from the beach.

Cultural protocols will remain unchanged.

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 12:30	T. Haug/R. Andersen	07/09/2015 12:30	Drew Engstrom	

(dtd 23 Jun 15)

POC to schedule/request ARCH is the following:

Clay Lebow: July 9 - July 13 (805-895-2958)

Jay Lloyd: July 13 - July 20 (559-287-2137)

Ann Munns: July 20 - July 27 (805-451-5825)

Clay Lebow: July 27 - August 3 (805-895-2958)

Jay Lloyd: August 3 - August 10 (559-287-2137)

See 204a for UC Clarification on working near cliffs - dtd 16 June.

ATV's not allowed in exclusion zones at El Capitan and Refugio.

All light towers are to be facing away from the sand beach until otherwise instructed by Unified Command.

Instructions for Dead Wildlife and Natural Resource Protection.

Any oiled wildlife (birds, mammals, or sea turtles) observed or incidentally collected in cleanup operations should be called in to the Wildlife Hotline at 877-823-6926.

Unknown source oil impacts should be reported to Lourdes Mahoney at 813-391-4657 (lmahony@cteh.com)

SAFETY MESSAGE

All personnel are reminded to keep hydrated and take rest breaks at a 50/10 work/rest ratio.

PPE: Hard hats, Tyvek suits, gloves, safety glass, neoprene boots. Avoid walking near waterways.
PFD's must be worn if the potential for drowning exists.
All response personnel are to be cautious of moving vehicles at all times and look in all directions before proceeding. Response personnel should be aware that all railroad tracks are in active use and should show extreme caution when operating in vicinity of tracks.

Report All Injuries require a immediate notification to Direct Supervisor.

Dry ice blasting Safety

Must utilize the following PPE: Tyvek Suit with Hood, appropriate gloves, steel-toed boots and ensure no skin is exposed. Ensure the operator of the gun has visual sight of the operator tending the machines or have someone in between to allow for stopping work when needed.

Hearing protection for all personnel within 30 feet of operation.

HISTORICAL/CULTURAL GUIDELINES

Leave cultural materials in place at the site of discovery, and mark its location.

Stop clean-up work in the vicinity surrounding the site, within a 6ft radius.

Immediately inform the field supervisor, who in turn, should immediately inform the FOSC and/or an appropriately designated cultural resource specialist. Obtain/provide location on map by indicating latitude/longitude.

In the event a scheduled meal is not made available to your crew, report this immediately to your Branch Director and the Logistics Section Chief

No work in estuary or creek habitats without biological monitor and approval from EUL.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager
Emergency Communications			

Medical:	Evacuation:	Other:

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
P. Gardner-Cox	07/09/2015 12:30	T. Haug/R. Andersen	07/09/2015 12:30	Drew Engstrom	

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	Assignment List
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	ICS 204-CG

3. Branch	4. Division/Group/Staging

Task Force/Strike Team	Team
Overview Oiling Sampling Assesment	

5. Operational Personnel	Name	Affiliation	Contact#(s)
Operations Section Chief	Drew Engstrom	Plains All American Pipeline	307-251-6932
Branch Director			
Division/Group Supervisor/STAM			
Task Force/Strike Team Leader	UEL-Mike Connell	CA DFW	805-331-1867

6. Resources Assigned — 'X' indicates 204a attachment with additional instructions

Qty x Size (Unit)	Strike Team/Task Force/Resource Identifier	Leader	Contact#	# Of Persons	Notes
1 (each)	North Team 1	Steve Gibson	562-252-2362	7	Some team members may not be part of the entire sampling effort. ☐
1 (each)	North Team 2	Jennifer Gold	805-450-8695	6	Some team members may not be part of the entire sampling effort. ☐
1 (each)	South Team 1	Sonia Torres	562-370-6794	11	Some team members may not be part of the entire sampling effort. ☐

7. Work Assignments

Collect a minimum of one fresh tar ball for each division. If possible, collect representative samples of different oiling types based on visual characteristics and habitat. See Overview Oiling Sampling Assesment dated 08 July '15 for further details.

8. Special Instructions

Sample will be collected, split, and distributed by CDFW-OSPR team lead and the splits will be given to RP and USCG.

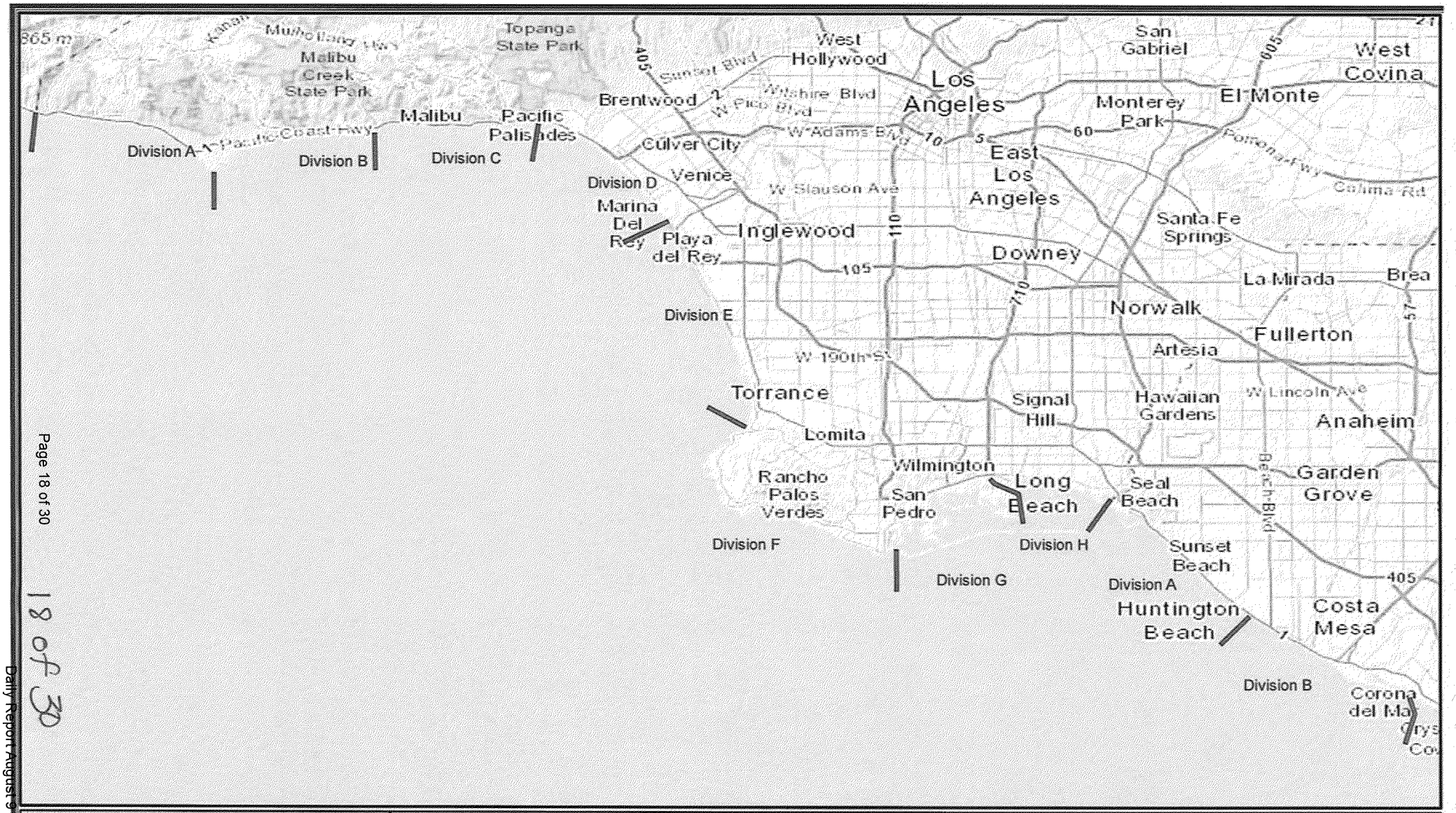
9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio Freq./System/Channel	Phone	Cell/Pager

Emergency Communications

Medical:	Evacuation:	Other:

10. Prepared By	Date/Time	11. Reviewed By (PSC)	Date / Time	12. Reviewed By (OSC)	Date / Time
Peter Gardner-Cox	07/09/2015 12:30	T. Haug/R. Andersen	07/09/2015 12:30	Drew Engstrom	

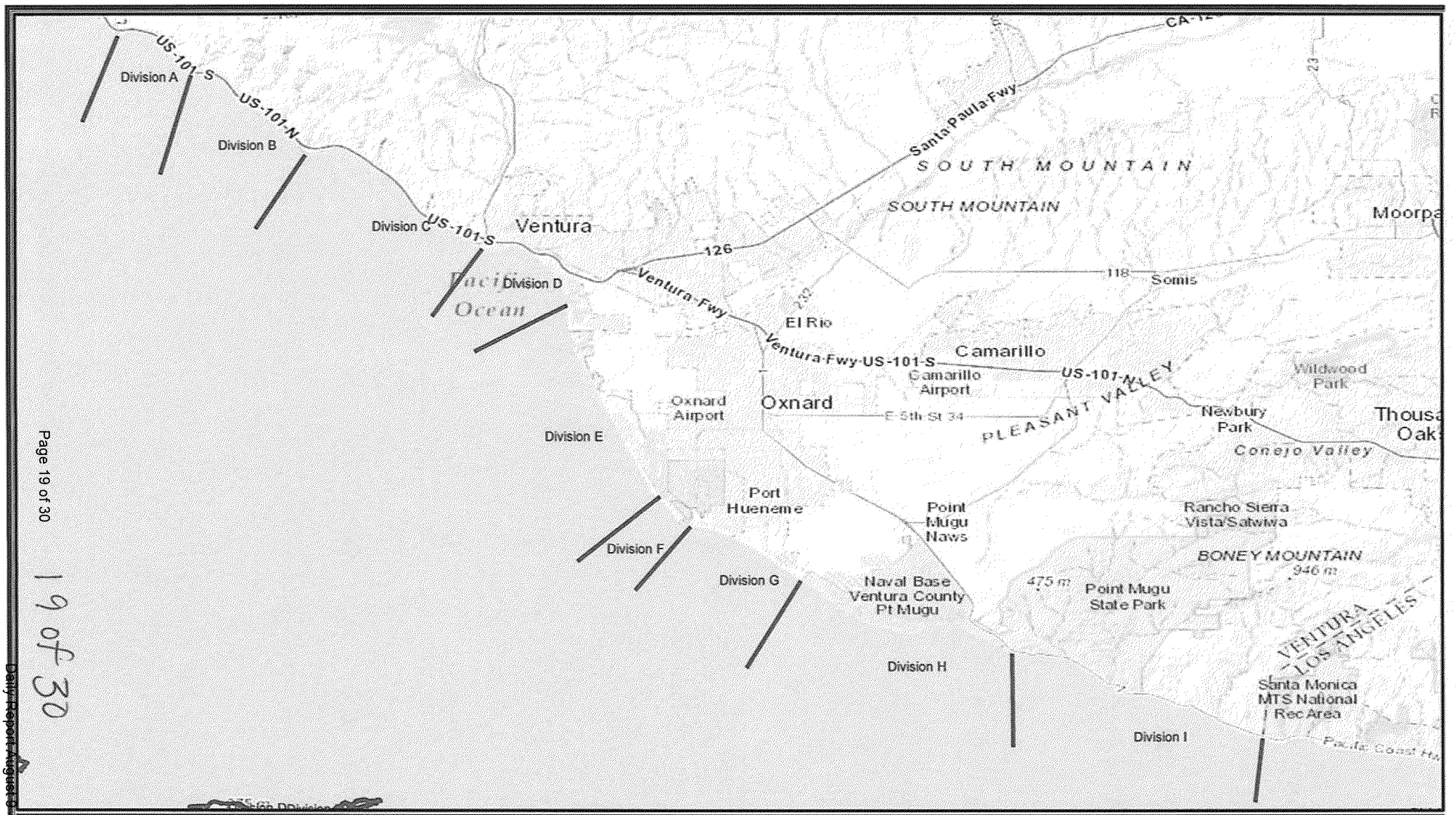


California Department of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: OSPR GIS
Requestor: Mike Connell
Author: L. Guphy Gustafson
Date Created:07/09/15

Overview Oiling Survey Assessment
South Team
Los Angeles / Orange Counties

Daily Report August 9 - Page 20 of 30

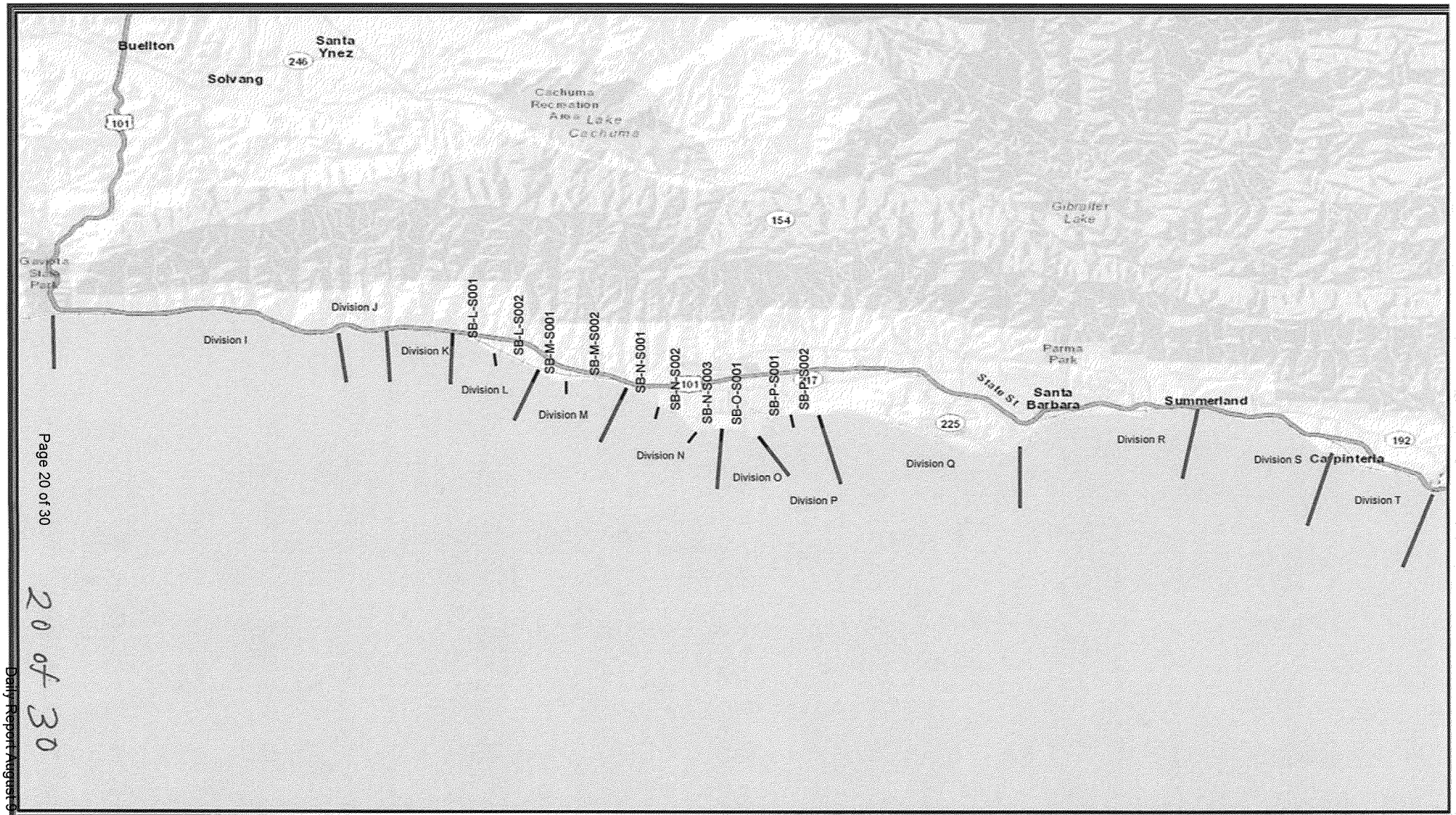


California Department of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: OSPR GIS
Requestor: Mike Connell
Author: L. Guphy Gustafson
Data Created:07/09/15

Overview Oiling Survey Assessment
North Team 2
Ventura County

0 2 4 6 8
Miles



20 of 30

Daily Report August 3 - Page 20 of 30

California Department of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: OSPR GIS
Requestor: Mike Connell
Author: L. Guphy Gustafson
Date Created:07/09/15

Overview Oiling Survey Assessment
North Team 1
Santa Barbara County

0 2 4 6 8
Miles

1. Incident Name: Refugio **Location: Mariposa Staging**	**2. Operational Period 21 (Date / Time)** From: 07-10-2015 0600 To: 8-11-2015 0559	**MEDICAL PLAN** **ICS 206-CG**

3. Medical Aid Stations

Name	Location	Contact #	Transport Availability
Catherine Murphy, Rn Medical unit Leader	Arroyo Quemada Site Field Nurse & Medical Unit Lead	210-784-8496	No
Rodrigo Sanchez, EMTP	Refugio State Park EMTP	805-618-5769	No
Chumash Fire Department	Gaviota Coast	Qun Tan Garcia 805-350-8819 805-832-2382	No
Santa Barbara County Fire, water rescue, helicopter with hoist	4410 Cathedral Oaks, Santa Barbara, A	911	Yes
Montecito and Carpentaria Fire Water Rescue Team	Santa Barbara County South	911	No
Ventura Fire, Oxnard Fire, Ventura County Fire, water rescue, helicopter with hoist	Ventura County	911	No
US Coast Guard, Medi-Vac. Rescue Swimmers	1001 South Seaside, San Pedro, CA 90731	855-562-4900 510-437-3701	Yes

4. Transportation

Ambulance Service	Address	Contact #	Care Capability
American Medical Response	240 East Hwy 246 Buellton, CA 93117	805-245-3424	Paramedic/EMT team
CALSTAR 7 (air medical transport team, no hoist)	3996 Mitchell Road Santa Monica, CA 93455	805-938-9038	Advanced Practice, 2 Nurse team
Santa Barbara County Air Support (air medical transport team with hoist capabilities)	906 Airport Road Santa Ynez, CA 93460	805-692-5723 Or 911	2 Paramedic team with Rescue Swimmer
Santa Barbara County Fire Rescue, Helicopter, Medical, water rescue and dispatch center	4408 Cathedral Oaks Road Santa Barbra	805-692-5723 or 911	Paramedic
US Coast Guard	101 South Seaside Ave #20, San Pedro, CA 90731	855-562-4900 510-437-3701 VHF Channel 16	Rescue Swimmer/Medivac

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Center	Helipad
			Air	Ground		
Goleta Valley Cottage Hospital	251 South Patterson Ave, Santa Barbara, CA 93111	805-967-3411	N/A	20/min		No
Grossman Burn Center	7300 Medical Center Drive West Hills CA	818-676-4177	20 min	1.25 hours	Yes	Yes
Santa Barbara Cottage Hospital (Anti-Venom is kept at this facility)	400 West Pueblo Street Santa Barbara, CA 93105	805-682-7111	8 min	27 min	No	Yes

Saint John Pleasant Valley Hospital	2309 Antonio Ave, Camarillo, CA 93010 Hyperbaric available Monday to Friday 0800-1800	(805) 389-5944	30	1 HR		
LA County Medical Alert (available 24/7)	200 UCLA Medical Plaza Suit B Los Angeles, CA 9005	1(866)940-4401	1 hour	N/A	No	Yes
UCLA Available 0800-1700	200 UCLA Medical Plaza Suit B Los Angeles, CA 9005	310-794-9014	30 min.	1 hour	No	Yes

6. Special Medical Emergency Procedures:

1. If medical, injury or dive emergency occurs on boat, call 911 and report location geographically where the incident is located (GPS Coordinates). 911 will dispatch appropriate emergency resources to scene.
2. Non-life/limb threatening illness or injury: notify direct supervisor, follow "medical reporting procedures" and render first aid. Supervisor will direct worker to field nurse or EMT on site.
3. All illnesses and injuries will be reported on Incident Reporting Line 805-618-5769.
4. For any situation in need of Anti-venom, Please see Santa Barbara Cottage Hospital.

Essential reporting information for EMS provider:

1. Nature of injury
2. Location of patient and point of contact
3. Point of contact
4. Age and gender of patient

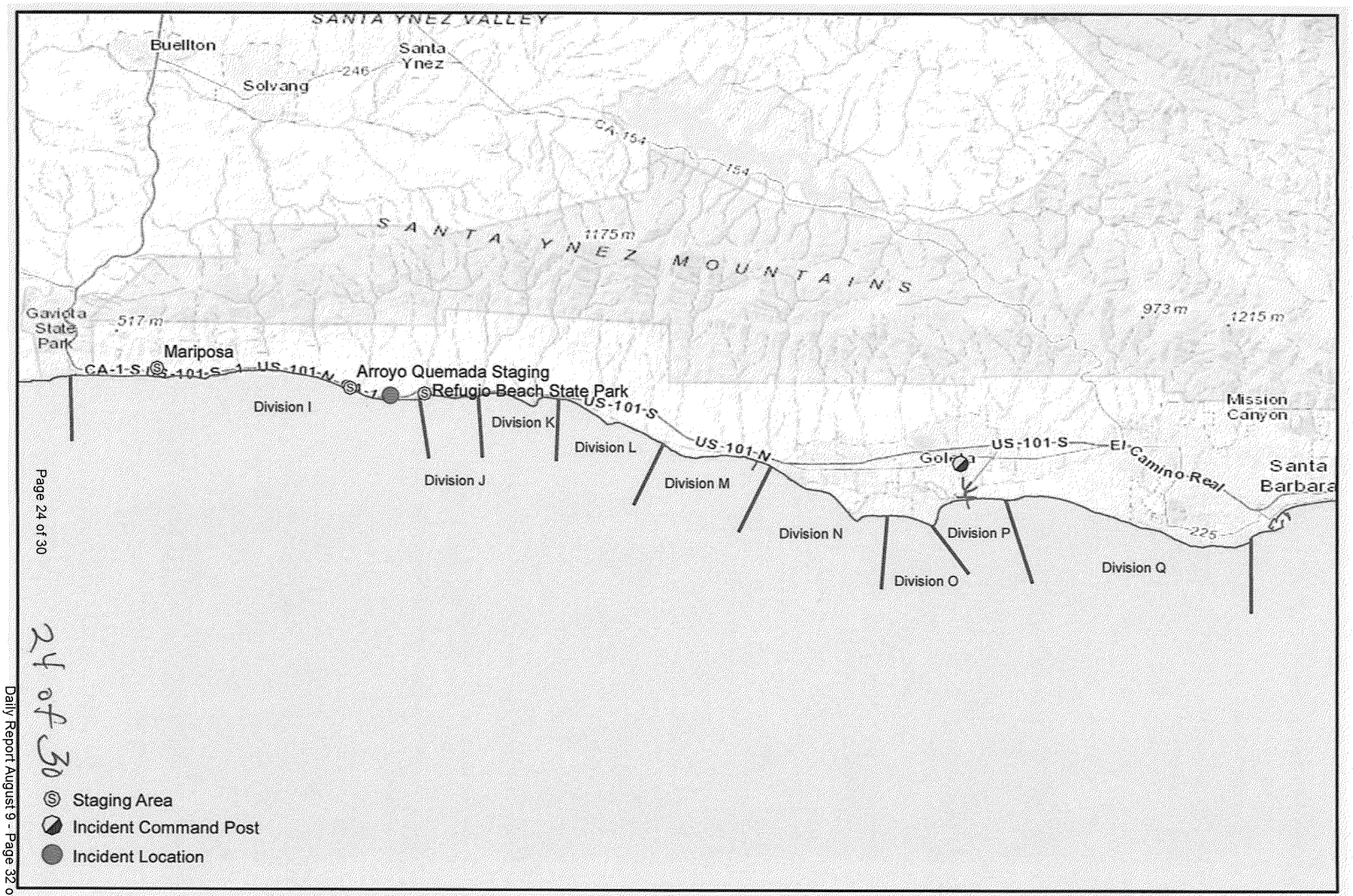
7. Prepared by: (ICP Safety Officer)	Date/Time	8. Reviewed by: (Safety Officer)	Date/Time
Art Loza, SOFR	07/09/15		7/9/2015 0630

1. Incident Name	2. Operational Period (Date/Time)	Operational Period	DAILY MEETING
Refugio Incident	From 07/10/2015 06:01 To 08/12/2015 06:00	Ops Period 21	SCHEDULE ICS 230-CG

3. Meeting Schedule(Commonly-held meetings are included)

Date/Time	Meeting Name	Purpose	Attendees	Location
07/10/2015 07:00	Operations Briefing	Present IAP and assignments to the Supervisors/Leaders for the next Operational Period	UC, Cmd & General Staff, Branch Directors, DIV/GRP Supv, and Unit Leaders	Refugio State Beach
07/10/2015 10:00	UC Meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP Goleta
07/14/2015 10:00	UC meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
07/17/2015 10:00	UC Meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
07/21/2015 10:00	UC meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
07/24/2015 10:00	UC meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
07/28/2015 10:00	UC meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
07/31/2015 10:00	UC meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
08/04/2015 10:00	UC Meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
08/07/2015 10:00	UC meeting	Teleconference for UC, Command & General Staff to discuss ongoing issues.	UC, Cmd & General staff	ICP
08/11/2015 08:00	UC Objectives Meeting	Review and update objectives	Unified Command, PSC	UC Meeting Room
08/11/2015 09:00	Command and General Staff Meeting	UC provide the command and general staff with updates on objectives and receives feedback/updates from staff.	UC, Command and General Staff, SITL, EUL	UC Meeting Room
08/11/2015 12:00	Tactics Meeting	Develop/Review primary and alternate strategies to meet Incident Objectives for the next operational period.	PSC, OSC, LSC, FSC, RUL, SUL, SOFR, DOCL, COML and THSP	ICP
08/11/2015 16:00	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period. To include SCAT Briefing	IC/UC, Command & General Staff	UC Meeting Room
08/11/2015 17:00	IAP Approval	Present the IAP to the Unified Command for approval.	IC/UC, PSC	UC Meeting Room

4. Prepared by (Situation Unit Leader)	Date / Time
Pete Gardner-Cox, RESL	07/09/2015 11:00



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Calif. Dept. of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: Situation
Requestor: SCAT Coordinator
Author: L. Gupby Gustafson
Date Created: 07/09/15

NAD_1983_California_Teale_Albers

Refugio Incident Situation Map 07 July 2015

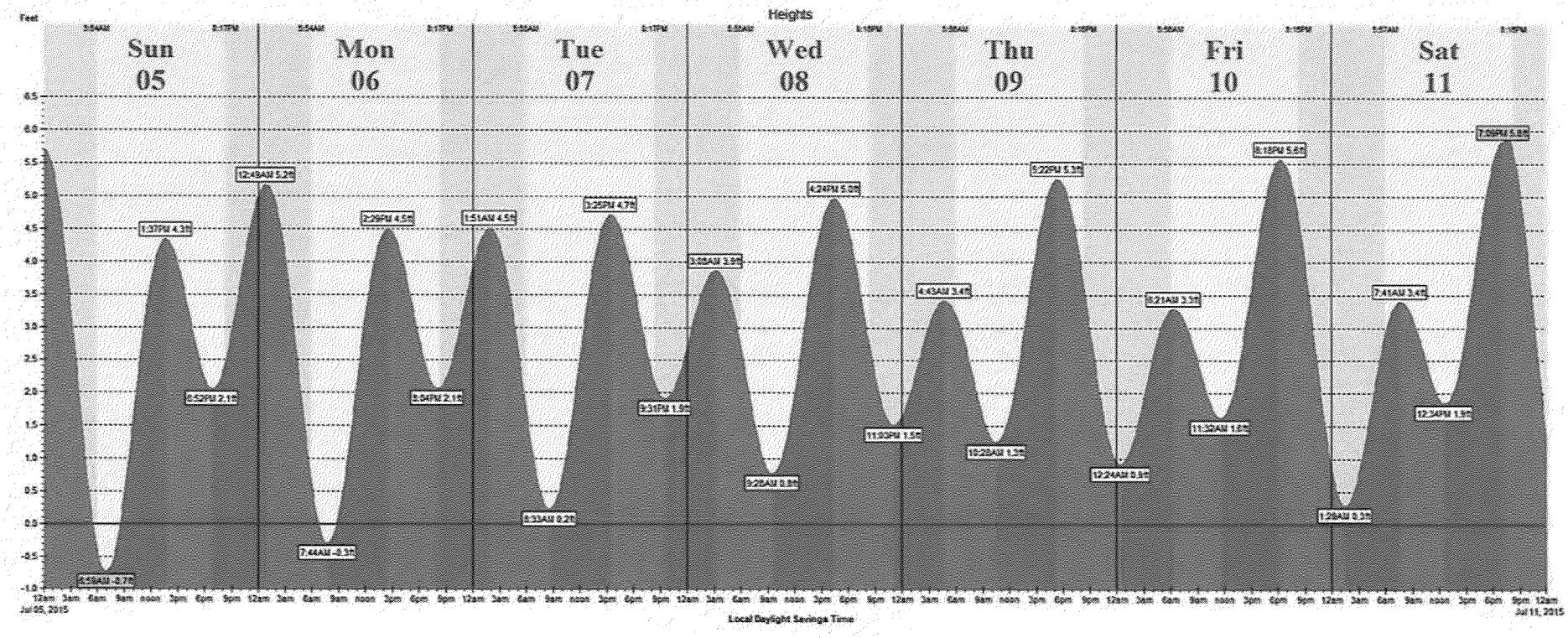
0 2 4 6 8
Miles

Gaviota State Park

Ship 2.6.0

Tidal heights at Gaviota State Park, Santa Barbara Channel, CALIFORNIA
Station No. 481 Latitude: 34° 28.10' N Longitude: 120° 13.70' W
Based on LOS ANGELES

From Sun Jul 05, 2015 to Sat Jul 11, 2015 (7 days) Local Daylight Savings Time



JULY 5TH - 11TH

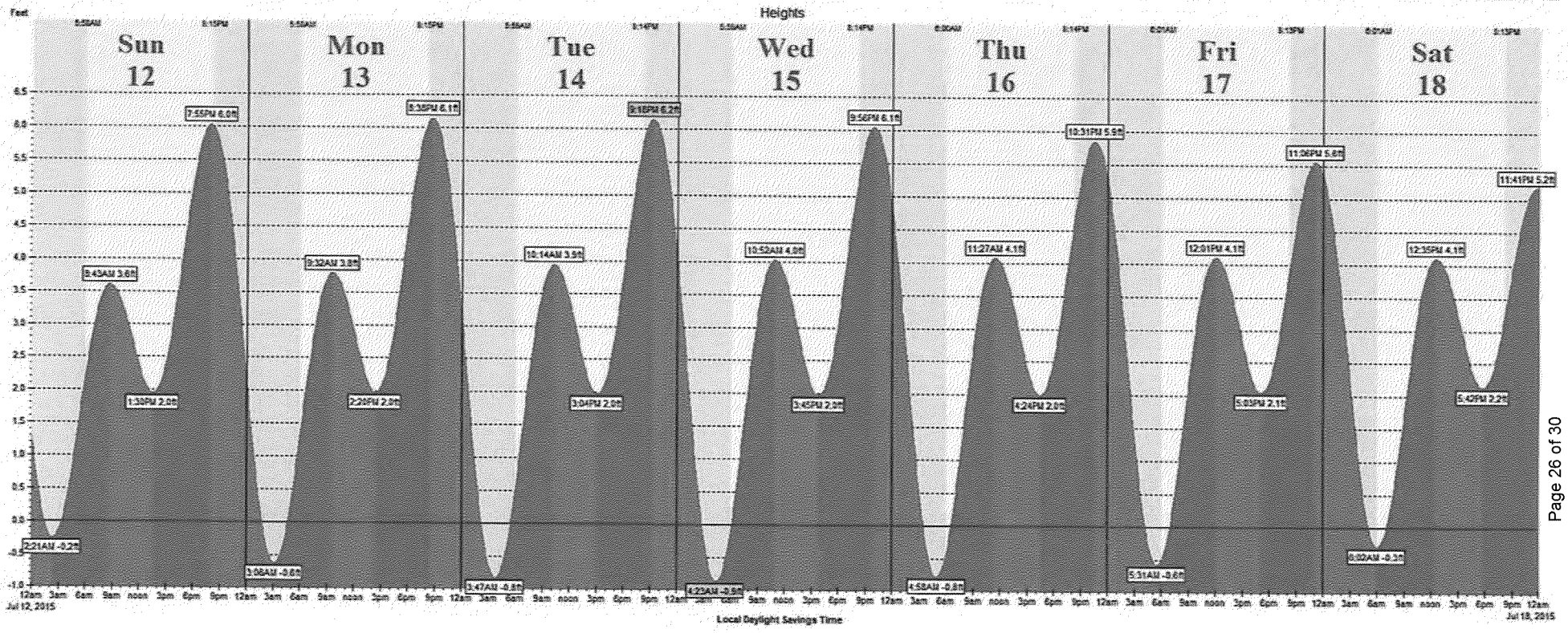
25 of 30

Gaviota State Park

Site 2.6.0

Tidal heights at Gaviota State Park, Santa Barbara Channel, CALIFORNIA
Station No. 461 Latitude: 34° 28.18' N Longitude: 120° 13.70' W
Based on LOS ANGELES

From Sun Jul 12, 2015 to Sat Jul 18, 2015 (7 days) Local Daylight Savings Time



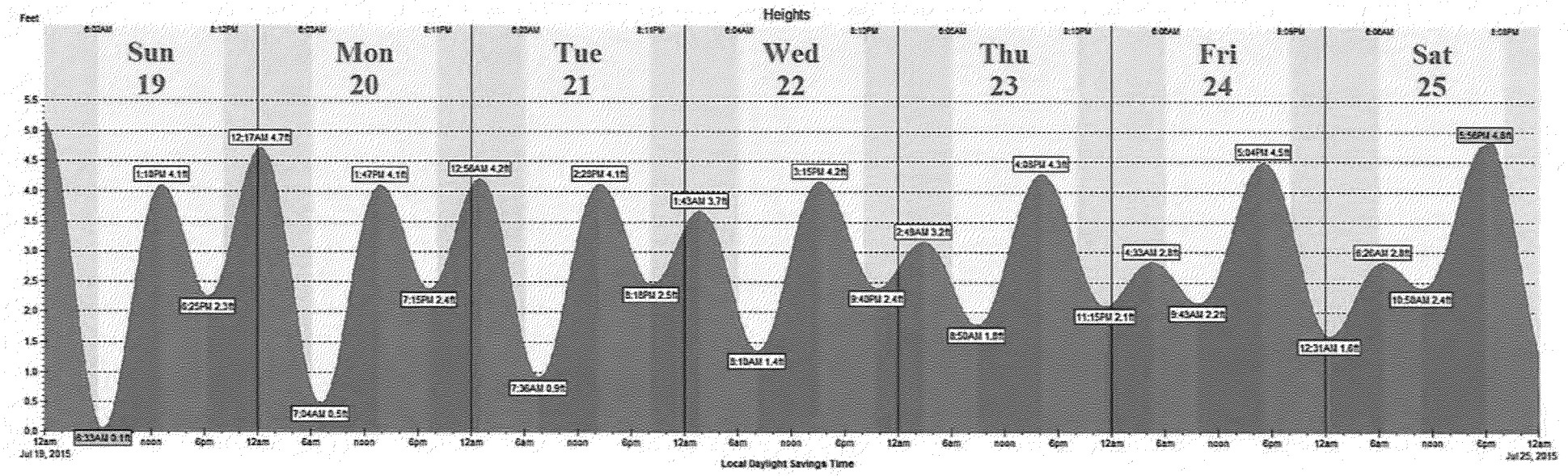
JULY 12TH - 18TH

Gaviota State Park

Ship 2.6.0

Tidal heights at Gaviota State Park, Santa Barbara Channel, CALIFORNIA
Station No. 461 Latitude: 34° 28.10' N Longitude: 120° 13.70' W
Based on LOS ANGELES

From Sun Jul 19, 2015 to Sat Jul 25, 2015 (7 days) Local Daylight Savings Time



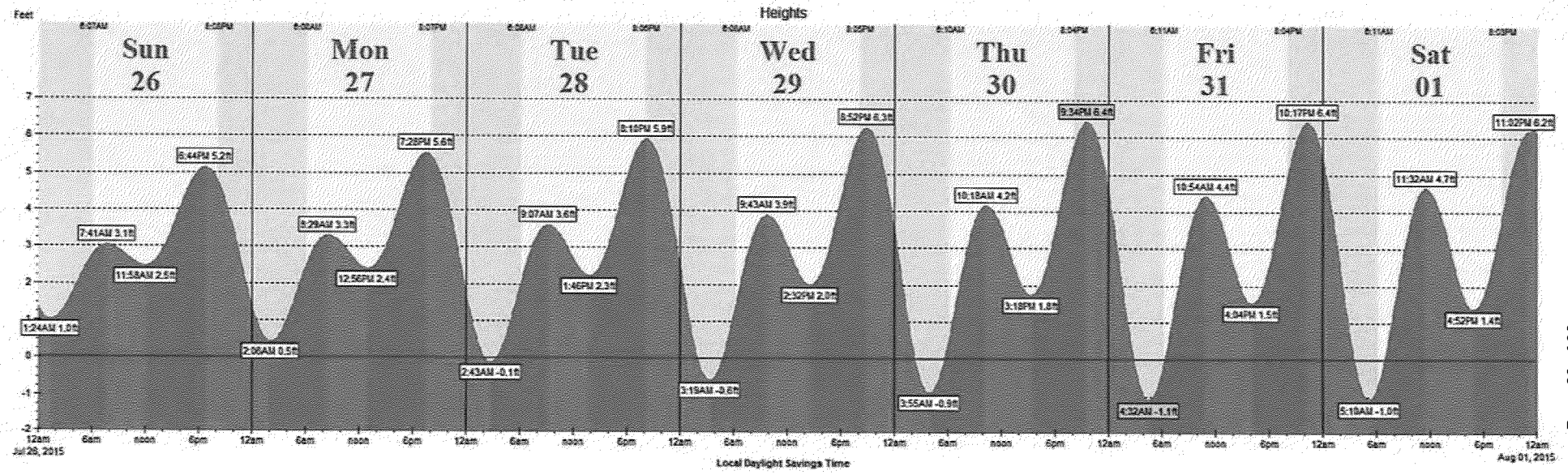
JULY 19TH - 25TH

Gaviota State Park

Shio 2.6.0

Tidal heights at Gaviota State Park, Santa Barbara Channel, CALIFORNIA
Station No. 461 Latitude: 34° 28.19' N Longitude: 120° 13.70' W
Based on LOS ANGELES

From Sun Jul 26, 2015 to Sat Aug 01, 2015 (7 days) Local Daylight Savings Time



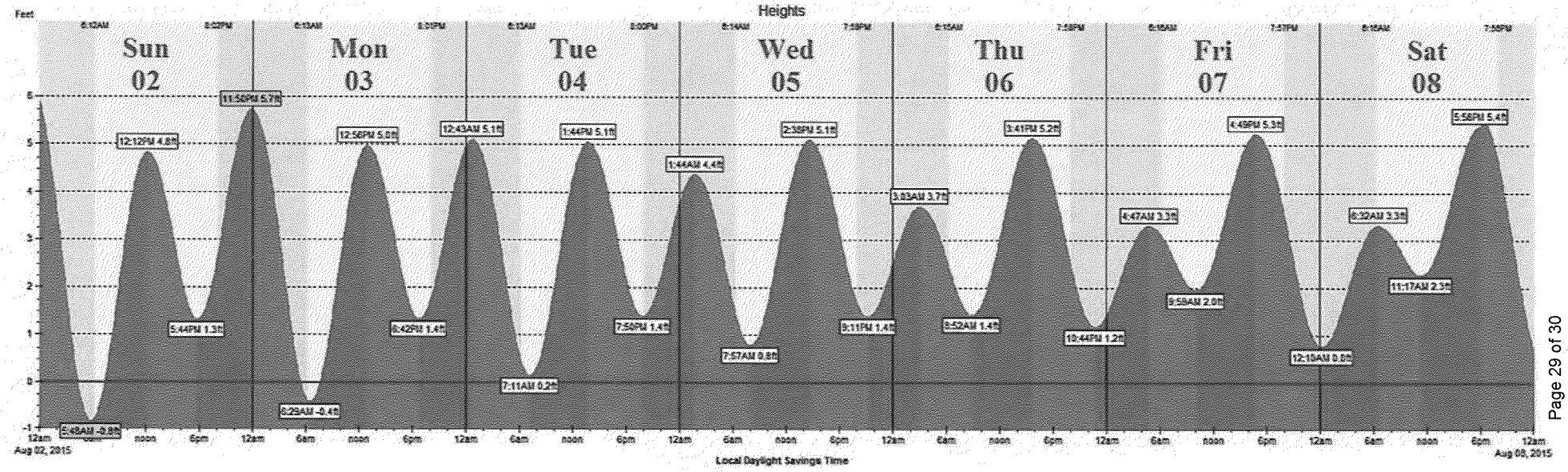
JULY 26TH – AUG. 01ST

Gaviota State Park

Ship 2.6.9

Tidal heights at Gaviota State Park, Santa Barbara Channel, CALIFORNIA
Station No. 461 Latitude: 34° 28.10' N Longitude: 120° 13.70' W
Based on LOS ANGELES

From Sun Aug 02, 2015 to Sat Aug 08, 2015 (7 days) Local Daylight Savings Time



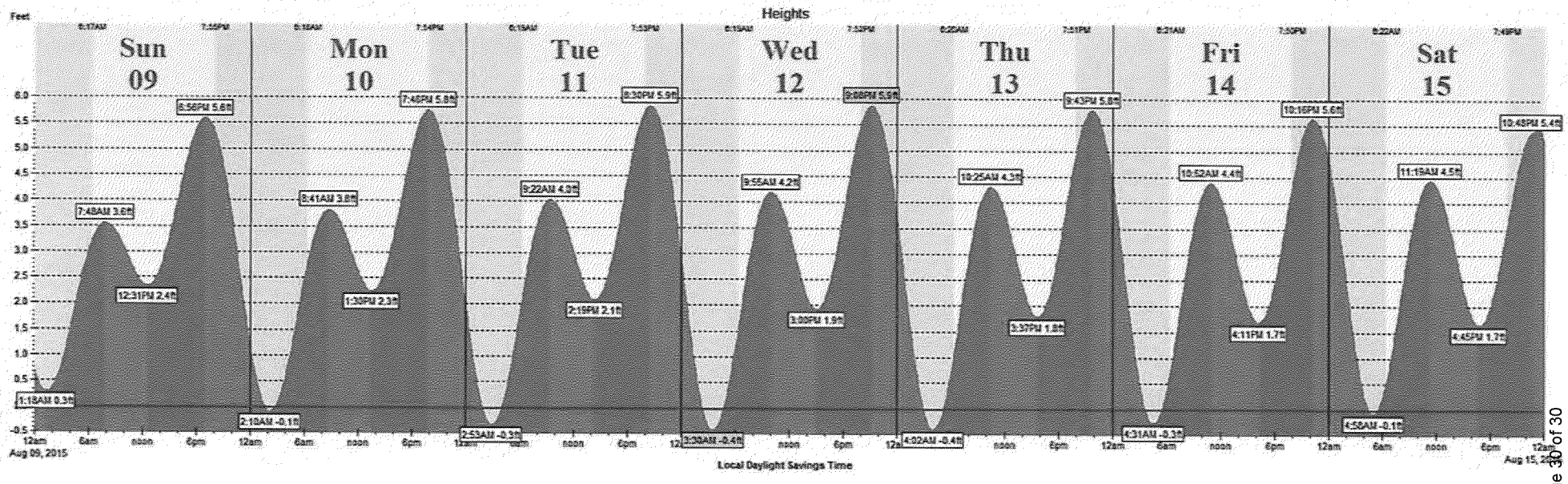
AUG. 2ND – AUG. 8TH

Gaviota State Park

Shio 2.6.0

Tidal heights at Gaviota State Park, Santa Barbara Channel, CALIFORNIA
Station No. 461 Latitude: 34° 28.10' N Longitude: 120° 13.70' W
Based on LOS ANGELES

From Sun Aug 09, 2015 to Sat Aug 15, 2015 (7 days) Local Daylight Savings Time



Aug. 9TH - 15TH