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DEVELOPMENT  
CITY OF NEWPORT BEACH  
PA

Dear Sir:

**Regarding: Environmental Impact Report prepared for the Banning Ranch Project and the construction of a major road through a very sensitive Coastal Bluff Habitat**

I am very puzzled about how the City of Newport Beach ended-up operating the remaining active oil wells. When I used to work for the Division of Oil and Gas and Geothermal Resources. All oil wells have to have bonds that assure proper plugging if they are shut-in (idle) for more than 5 years. Most of the 489 wells would be played out (non-productive) years ago if the field started producing in the 1940s, and according to California Conservation Law the wells should have been plugged and the well sites restored years ago. In addition, if the majority of the 489 wells are plugged and abandoned as required, were they plugged and abandoned to the current criteria for wells in areas that will be subject to urban development? I wouldn't want to live over an old oilfield that has oil wells that haven't been abandoned to urban criteria (concrete from bottom to top). Some of the wells intersect fault planes and could be sheared by any significant fault movement. I have attached maps and cross-sections of the Newport and West Newport Oilfields from Report No. TR12 "California Oil and Gas Fields, Volume II, South, Central and Coastal Offshore California. Numerous Newport-Inglewood fault traces are shown extending from depth to the surface in the West

It was very disconcerting to see how the EIR was written to downplay the fact that the Project site is located in a major fault zone. I am submitting the comments below.

Section 4.3 GEOLOGY AND SOILS

Page 4.3-1 - Subsection 4.3.1 INTRODUCTION

Grading is the development activity that is most destructive. The reader should be informed what the percentage of project grading is for "bluff/slope restoration versus remedial grading to address geotechnical and soils issues". The main reason all of this restoration and remedial grading is necessary is because the developers are planning to build homes, offices and roads in the Newport-Inglewood Fault Zone, one of the major active fault zones in Southern California.

The developers are predicating the proposed development with the idea that they are engineer around the problem of being located on a major fault, a zone of right lateral crustal adjustment. It is unlikely anyone would be killed but the stucco repair bills will be astronomical.

Page 4.3-3 - Subsection 4.3.2 REGULATORY SETTING

Who is the lead agency?

Page 4.3-4 Has the RWQCB's Model Water Quality Management Plan (WQMP) and post 2003 Local Drainage Area Management Plan (DAMP) or Location Implementation Plan (LIP) been revised as required for new development? If it hasn't been revised, it is way overdue, and if it has this more up-to-date information should be included in this EIR.

Pages 4.3-4 and 4.3-5 - Subsection 4.3.3 METHODOLOGY

GMU used a Caltrans and commercial computer program (EZ-Frisk- vers.7.22) to assess ground motion on the project site. Buoyant conditions representative of soils below groundwater were



modeled below an elevation of 0 feet. It the model assumes soils on bluff slopes are saturated when this condition doesn't exist?

Page 4.3-5 to 4.3-6 - Subsection EXISTING CONDITIONS

**Site topography- this subsection is confusing.** This subsection states that there are two distinct geomorphic regions.... "Approximately 254 acres of the 401 acres (63.3 %) in the southeast portion of the project site are atop Newport Mesa, as the upland, a board flat topped mesa at an elevation 50 to 110 feet. ... The highest elevation is 105 feet above msl" ... located at the eastern-central portion of the project site. The term Bluffs is used as defined in the Newport Beach Municipal Code Section 20.70.' "bluff" is a high bank or bold headland that slopes down to a body of water or plain.' Are there not bluffs above the arroyos? This is a very specific definition and it is ..." the bluffs that are subject to surficial slumping and gully erosion and the bluffs represent the western edge of the Upland Area rising between 50 to 90 feet above the adjacent Santa Ana River floodplain. This floodplain at an average elevation of 1 to 10 feet comprises the northwestern one-third (33.33%) of the Project site. Two major arroyos, the Northern Arroyo and Southern Arroyo have incised the bluff" ... **Thus, 63.3 plus 33.33% is 99.63 % and we must assume that the "bluffs" are part of the Upland.** The next paragraph states. ... "The Lowland area encompasses approximately 147 acres in the northwest portion of the Project site at an average elevation of 1 to 10 feet above msl." **(Msl) Mean Sea Level and is no longer acceptable reference for vertical elevation datum especially in coastal regions of the United States.** Why not explain that the Lowland area is the floodplain with the respective acreages?

Subtopic- Geologic Setting

**Section 4.3 Geology and Soils is found in Subtopics - Geologic Setting, Seismic Environment, Faulting and Surface Rupture, *Regional Faulting***

This section is poorly written and likely misleads the reader. ..."Three regional faults systems are within approximately 6 miles of the Project site: the Compton Trust Ramp, the Newport-Inglewood Fault Zone, and the San Joaquin Hills Blind Trust Fault". **Of the three fault systems listed, the Newport-Inglewood Fault Zone has the far greatest regional significance.** The remainder of this large paragraph goes on at length to explain the Compton Thrush Ramp, which was identified as having no Holocene movement (within 10,000 yrs.) Exhibit 4.3-1 an entire page is devoted to this by definition inactive fault. The implication is that the limited Holocene evidence found by the Banning Ranch LLC consultants means that all the faults sections found on the Project property might not be active, when this isn't the situation.

Since the 1940s, it has been known the Newport- Inglewood Fault Zone crosses the Banning Ranch because the fault is identified by numerous oil wells drilled in the West Newport Beach Oilfield. The next paragraph states ... "The Newport-Ingelwood Fault Zone is a northwest-southeast trending feature **within 1/2 mile of the Project site.**" Yes, it is within 1/2 miles, in fact numerous fault traces (segments cut through the Project site. Exhibit 4.3-2 is a small-scale regional map showing the Newport-Inglewood Fault Zone from Beverly Hills to South Laguna, and the next two paragraphs describe this fault zones as seen in areas north of the Project.

Page 4.3-7. "Since 1920 approximately 15 earthquakes 15 earthquakes greater than or equal to magnitude 4.0 have occurred along this fault zone north of Newport Bay." Why discuss much of the activity north of the Project area when there have been at least three quakes that I remember as having been centered in Newport Beach since 1989 when I bought property in the area. Second paragraph, it is stated... "South of Huntington Beach (the Project area) the Newport-Inglewood Fault Zone has a northwesterly orientation which diverges into splay faults. Splay faults are smaller faults that branch of the main fault. Splay faults on the Project site are part of the North Branch of the Newport-Inglewood Fault Zone. The implication is that fault



splays are not faults, but they are. "Exhibit 4.3.3, Geologic Map shows two fault segments that are less than 1800 feet long and are separated by 1300 feet of sediments and soils that show no Holocene activity and the terminus of these fault segments "splays" are said to appear not experience high degrees of seismicity (evidenced by infrequent movement and low slip rates) ... "trench data indicate that portions of these fault segments could not be proved to be inactive". **Exhibit 4.3.3 shows more than two fault segments (greater than 15 segments). Why the awkward weasel words? There is a major fault zone crosses the Project area, but the authors if this EIR want to confuse that fact as much as possible.**

Page 4.4-7 - Subtopic -*Surficial Deposits, Soils and Stratigraphy*

Discussion of the surficial deposits, river alluvium (Qal) and marine terrace deposits (Qtm) and the bedrock San Pedro Formation (Qsp) focuses on the marine terrace deposits and states the these soils above the marine terrace deposits (Qtm) show a lack of disturbance that would denote fault activity in the Holocene period, but don't go into detail on how many places these soils were trenched. The arroyos contain alluvial material interfingering with colluvial material (Qcol), comprises if sands, silts and clays. Associated with former oil production facilities are pockets of artificial fill (Qaf).

Page 4.3.9 - *Subtopics, Seismic Hazard Zones, Seismically induced Ground Shaking, and Liquefaction and Lateral Spreading*

The CDMG, California Division of mines and Geology (2008) identified the lowland area near the Santa Ana River is subject to liquefaction. The west facing bluff slopes were also identified as zones of required investigation for earthquake induced landslides. The EIR states. ... "The Project site is subject to fairly high levels of seismically induced ground motion due to its proximity to the Newport-Inglewood Fault Zone" **It would be more accurate to state the Project Site is crossed by the Newport -Inglewood Fault Zone. I would dispute the assumptions made in the (PSHA in the GMU 2010 Report ... "a risk level of 10 percent probability of exceedance in 50 years (475-year average return)"... LIVING IN THE AREA FOR 22 YEARS, I am aware of 3 quake episodes in the Newport Beach area during the last 22 years. Please explain why when using the Caltrans model (State Model), the peak ground horizontal acceration (PHGA) was .60g significantly higher than the applicant' projected PHGA of.37g.**

Page 4.3-9 to 4.3-10 - The EIR states that most of the soil material in the Uplands proposes for development are too far above the water table to be subject to liquefaction and lateral spreading to occur. There are pockets of colluvial and artificial fill in the Uplands and bluff area, which could be subject to liquefaction if saturated and although they won't be saturated. ... "As identified in the GMU 2010 Report colluvium and artificial fill would be removed by corrective grading below development areas. This paragraph suggests that the natural arroyos must be graded for public safety when it is obvious that the building area will be increased by grading and this maximizes the monetary aspects of the proposed project.

Page 4.3-10 - subtopic *Compressible and Collapsible Soils*

*Third paragraph. "Colluvial soils present at the base of the Upland slopes, in ravines and in arroyos are a combination of slope wash, talus deposits, general soft and porous" ... "considered moderately to highly and compressible and would be removed and recompacted underneath development areas during grading".* **The applicant is proposing to take all the dirt out of the arroyos, essentially destroying this rare habitat, so that they may (safely) develop closer to the bluff edge.** The bluff arroyo areas should be left undeveloped and there would be no need to remove the dirt. Widespread grading and earth moving is the development activity most destructive to the environmental and will kill and displace the far more individual plants and animals.



Page 4.3-11- *Subtopic Bluff Slope Stability*

The first two paragraphs contain a description of the bluffs and attribute most of the bluff erosion to the former oilfield activities. Bluff slope retreat due to erosion (2 feet a year) is not considered a critical site hazard after the oil production equipment and well sites in the Newport West Oilfield are remediated as required by Conservation law. Most of the other paragraphs in this subtopic are filler to enhance the impression that real research has been conducted.

Page 4.3-12- Subsection **Mineral Resources**

No effort is made to distinguish between those few wells that may be active in the West Newport Oilfield and the historical 489 well total. The public should be told how the majority of the 489 wells in the project site have been abandoned, if they have been abandoned, and how have these wells been plugged; the criteria for abandoning oil wells in urban developed areas is greater. **The City of Newport Beach operates 16 wells out of the 489 wells. Is the City the owner of these wells?** Subscript no. 7 - only mineral rights are owned West Newport Oil Company, which is wholly owned by Horizontal Drilling LLC, separate from the surface owners. Does the City of Newport Beach own oil wells and maintain bonding to assure proper abandonment of these wells?

Page 4.3-12 - **Section 4.3.5 PROJECT DESIGN FEATURES AND STANDARD CONDITIONS**

**Subsection - Project Design Features**

PDF-1 Requires a habitable structure setback of 60 feet from the tops of bluff edges and states no habitable structures will be constructed within identified fault setback zones. **Comment - The applicant's consultant seems very reluctant to locate faults.**

PDF-4.3.2 Master Plan Specifies drainage devices tube constructed along slopes and minimize surface flows and irrigation. This is good.

PDF- 4.3.3 "The Master Plan includes a Bluff/Slope Restoration Plan that requires eroded portions of the Bluffs be repaired and stabilized. In order to stabilize slopes and help avoid erosion, bluff areas devoid of vegetation after repair and stabilization will be planted with native vegetation that does not require irrigation." **There is no irrigation now! Why remove existing plants which provide stabilization, only to replant with new plants not requiring irrigation?**

Page 4.3-12 **Standard Conditions and Requirements**

This sounds good... Any grading Plan submitted to the City that deviates from the grading plan submitted for the tentative map shall be reviewed for conformance. If not in substantial conformance, a new revised tentative map and CEQA determination shall be required. Since the City operates oil wells and has some interest in getting the old oilfield properly abandoned with LLC money, it seems like the fox maybe guarding the henhouse.

Page 4.3-14 - Section 4.3.6 THRESHOLD OF SIGNIFICANCE

The authors of this EIR conclude that all the thresholds of significance are mitigated to levels of insignificance. Thresholds 4.3-2 and 4.3-3 expose people or structures to potential substantial adverse effects. It is concluded that all hazard on development and building on a very active major fault zone can be engineered away. **As a Registered Professional Geologist #7858 in the State of California, I don't agree.**

Threshold 4.3-5 Result in substantial erosion or loss of topsoil. It is proposed to remove all of the topsoil in the arroyos and use it for building pads. **This practice will result in lost of the value of topsoil as topsoil.**

If the Project would result in a significant impact related to geology and soils if it would: Threshold 4.3-6 "Be located on a geologic unit or soil that is unstable or that would become unstable as result of the project, and potentially result in on or offsite landslide, lateral spreading, liquefaction or collapse."

The impact summary conclusion on Page 4.3-16 concludes that all the items related to potential impacts due to certain onsite soils can be mitigated to a levels of insignificance would be more believable if the EIR was significantly most honest about planning a development on 401 acres that is all located in a major fault zone which they describe a smaller fault splays. The right lateral transverse Newport-Inglewood Fault Zone is a major zone of crustal adjustment very similar to the San Andreas Fault. The removal and loss of that unique habitat in the arroyos is justified by being needed for the public safety. But adjustment to the required setback from the bluff slopes and arroyos would move safely accomplish the same goal without loss of unique habitat.

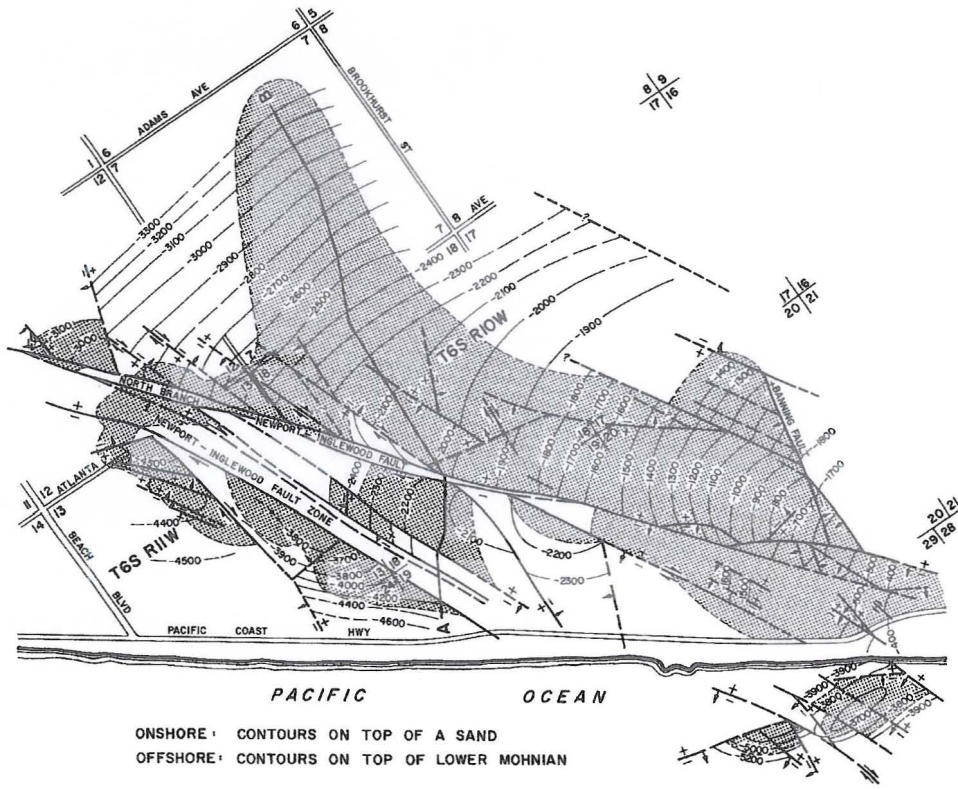
The EIR prepared by Bon Terra seems to miss the point of an EIR. The EIR discusses the impact of the existing geological and soil conditions on the Project more the impact of the proposed Project on the environment.

Sincerely,

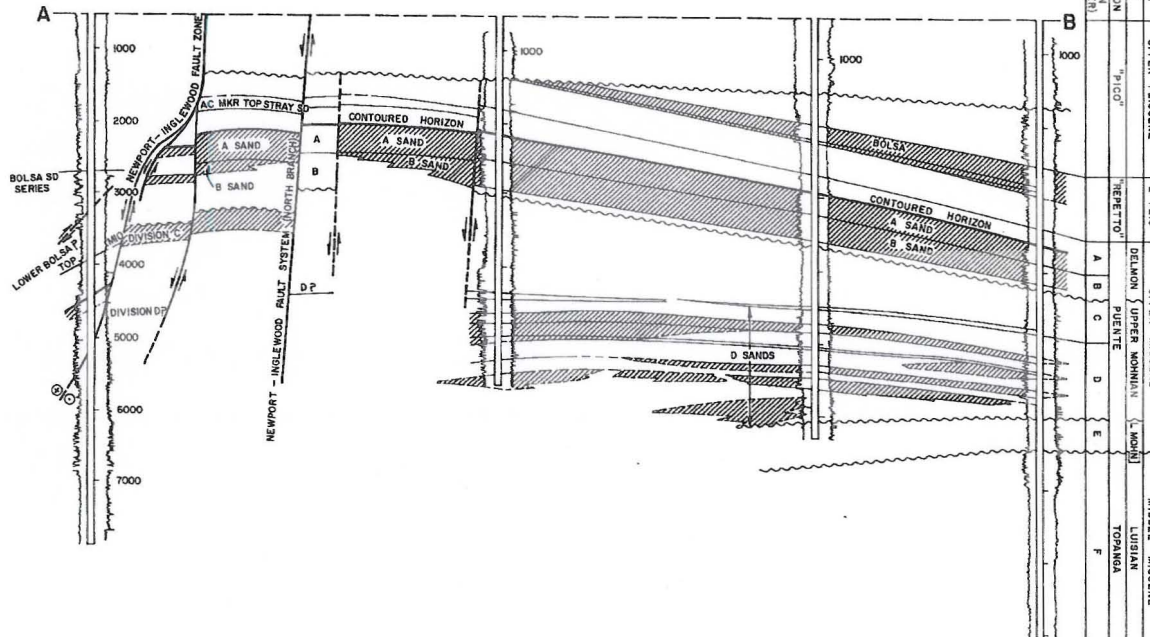
Toni M. Callaway  
California Registered Professional Geologist #7858



# WEST NEWPORT OIL FIELD

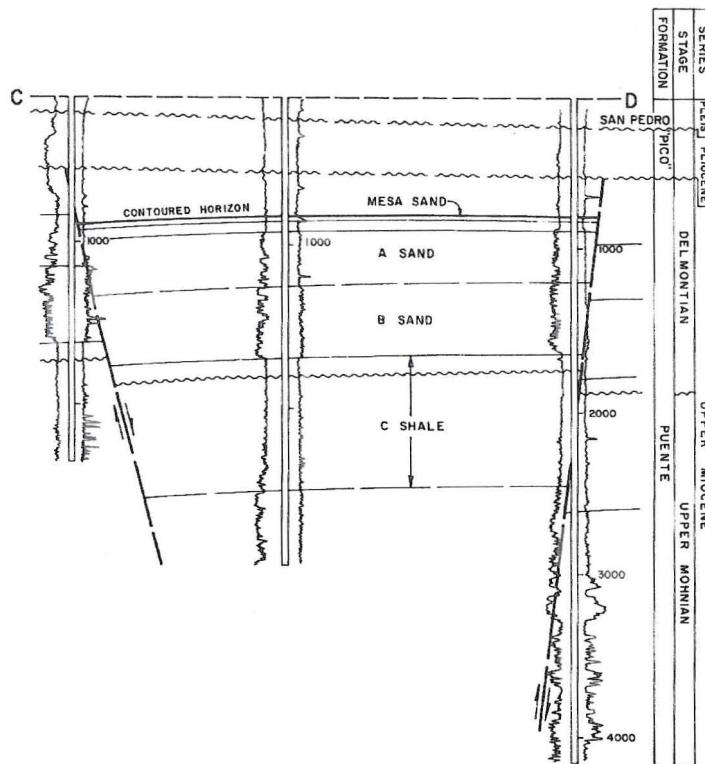
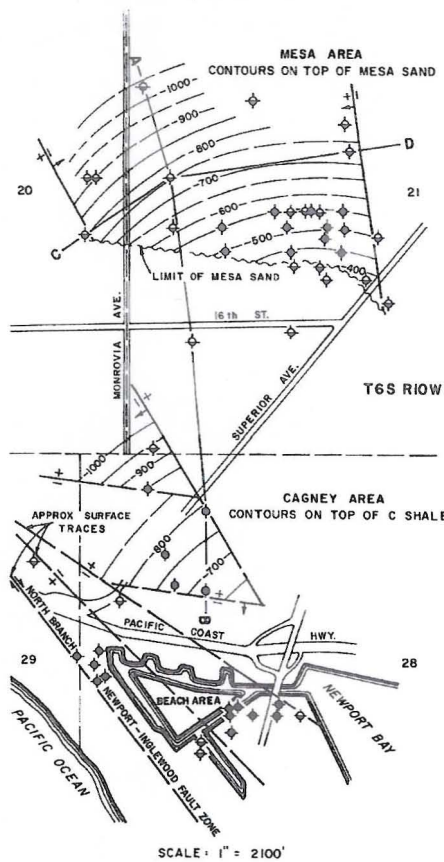


ONSHORE: CONTOURS ON TOP OF A SAND  
 OFFSHORE: CONTOURS ON TOP OF LOWER MOHNIAN

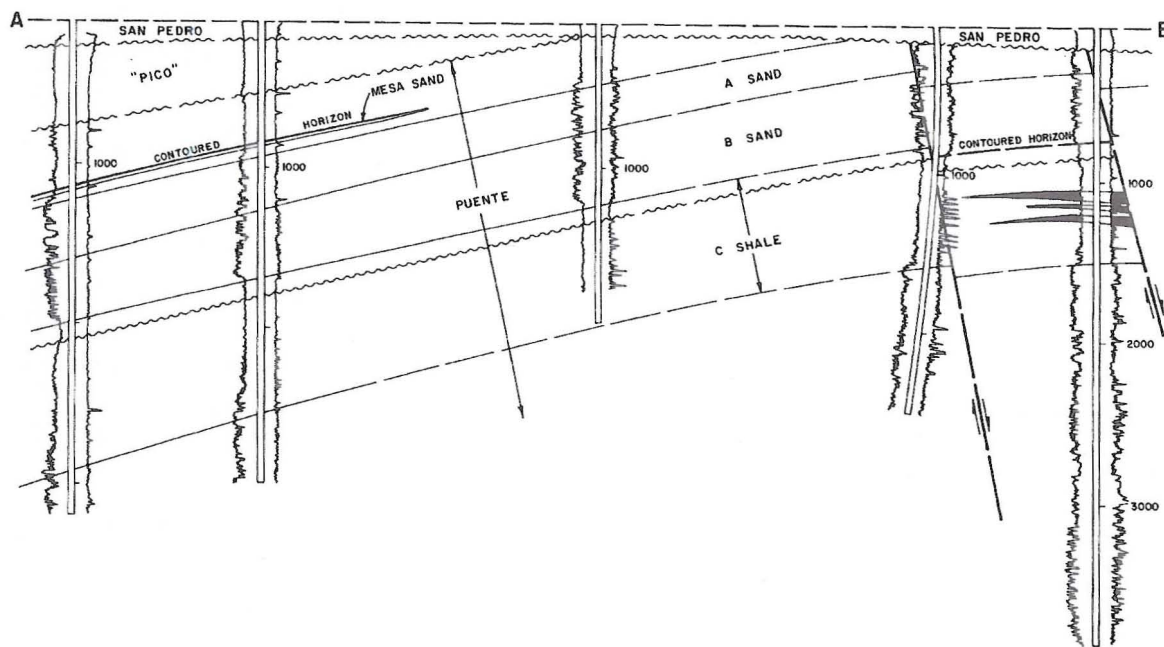


SERIES	STAGE	FORMATION	DIVISION	WISL. ER.
UPPER PLIOCENE		"PICO"		
L. PLIO.		"PEBBLE"		
UPPER MIOCENE	DELMON	A SAND B SAND	A	
	PUENTE		B	
			C	
			D	
			E	
MIDDLE MIOCENE	L. MOHI	D SANDS		
	TOPANGA		F	

# NEWPORT OIL FIELD



SERIES	FORMATION
PLIOCENE	SAN PEDRO
PLIOCENE	"PICO"
DEL MONTIAN	MESA SAND
DEL MONTIAN	A SAND
DEL MONTIAN	B SAND
UPPER MIOCENE	C SHALE
UPPER MIOCENE	PUENTE
UPPER MIOCENE	NEWPORT



11/7/2011

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